

Manufacturers Record

Exponent of America



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JUNE 16, 1921.
Baltimore, Md.

Shall We Be Rabbit Hearted or Lion Hearted?

The United States has one-half of the world's coal area, and iron ore and some other minerals apparently proportionately as great. It has nearly one-half of the world's railroad mileage, one-half of the world's coal and iron and steel output, three-fourths or more of the world's sulphur production, two-thirds of the world's cotton, one-third of the world's stock of gold, and one-third of the world's accumulated wealth.

These are typical illustrations of our almost limitless natural resources and of our material advancement. We have barely scratched the ground in the utilization of our raw materials and of our myriad advantages. We have resources sufficient to justify a development of wealth, and an output of coal and iron and steel and petroleum and other things far beyond the total of the whole world of today.

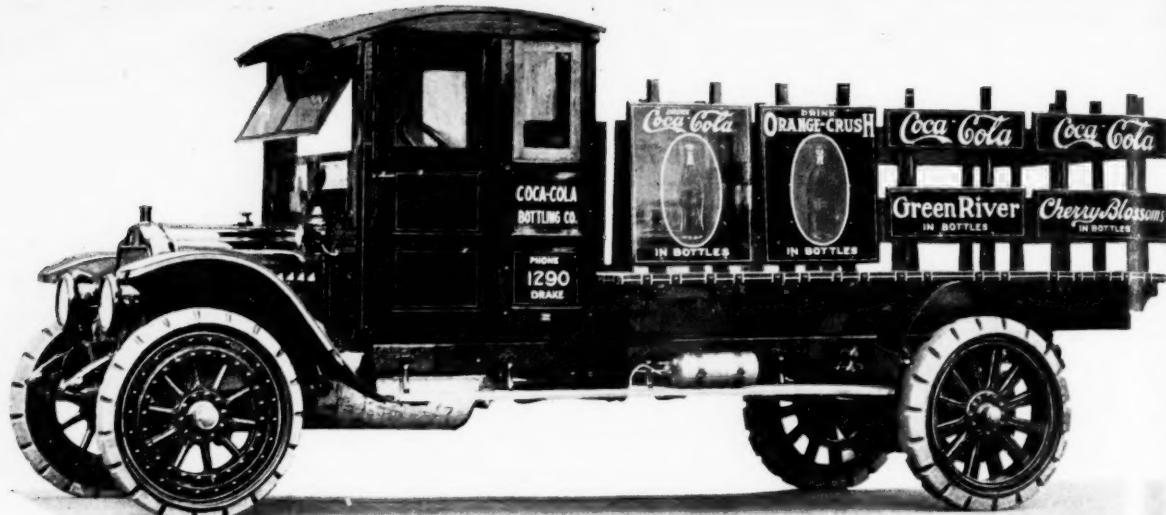
And yet we have only about 6% of the world's population and 6% of its land area.

Despite these incalculably great resources and these marvelous advantages, which offer a field of endeavor and profit beyond all the dreams of all the ages, we are at the moment a land of pessimism, of rabbit-hearted men afraid of our shadows. A drink at the fountain of knowledge of these great truths, so briefly presented, should give us the courage which it was once said caused a hitherto timid rabbit to rush afield and box the ears of a bulldog.

Where is our courage? Where is the backbone of our bankers and great business leaders? Where is the foresight and power of the administration that all do not unite and throw out of power those who through their unwise acts have caused the Federal Reserve Board to make cowards of the nation that we have become like a lion so changed as to run from a rabbit.

It is time to assert ourselves; time to have a rebirth of faith in ourselves and our country; time to be "a bull on America;" time to put away the Socialism and Bolshevism and false financial leadership which so long held sway in Washington, and in the language of President Harding slightly changed, say: "By the Eternal, this country shall not die of dry rot, nor shall it be strangled by false financing nor destroyed by radicalism, and radical unionism and all the evils which march under the red flag of anarchy and revolution, slackery and inefficiency."

Then let the honest-hearted workers, whether in the factory, on the farm, in the bank, or in the office; in the pulpit or in the teacher's chair; at the editor's desk or at the Linotype machine; rich or poor, high or low, have a new birth of righteousness and patriotism, and a new consecration to work as God's appointed way to man's advancement here and hereafter. He who spoke as never man spake said: "My Father worketh hitherto and I work." Who will follow in the same spirit?



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Manufacturers Record

Exponent of America

JUNE 16, 1921

Volume LXXIX

Table of Contents

Number 24

Shall We Be Rabbit Hearted or Lion Hearted?	Cover Page
---	------------

EDITORIALS

71-80

The Way to Create Prosperity. Salaries Paid to Railway Officers Not Excessive.	How the Railroads Were Wrecked by Government Control and Vicious Labor Regulations.
In Defense of Retail Merchants.	A Commission for a Broad Study of Transportation.
Samples of Many Letters Reaching Manufacturers Record.	There Is Hope Ahead.
"There Is No Free Breath to Be Drawn in the Sphere of So Malevolent an Influence."—Hawthorne.	Some Striking Facts About Our Export Trade. America Must Lead the Way to World Prosperity.
Why Governor Harding and Others Should Be Compelled to Resign.	Retail Prices Now and One Year Ago.
Great Industrial Progress in Two Years. Lost \$10,000,000 on His Railroad.	President Harding and His Advisers Must Take Cognizance of This Situation If They Would Restore Confidence in the Federal Reserve System.

NEWS ARTICLES

North Carolina State Bankers vs. Federal Reserve Board	81
Activities Noted Throughout the South—More Than \$30,000,000 in Proposed Construction Activities for Week Ended June 10	83
\$7,500,000 for New Agricultural College for Louisiana	83
Labor Cost in House Building—Sample Job of a Baltimore Dwelling	85
California Toppers in Louisiana	87
Fertilizer Sales and the Cotton Crop	88
Shipping American Cotton to India	89
1920 Slate Production Most Valuable in History	90
Recent Developments in the Manufacture of Sulphuric Acid	91

DEPARTMENTS

News and Views From Our Readers	92	Mechanical	97
The Iron and Steel Situation	93	Foreign Needs	97
Railroads	94	Construction Department	98
Good Roads and Streets	95	New Financial Corporations	114
Lumber and Building Materials	96	New Securities	116

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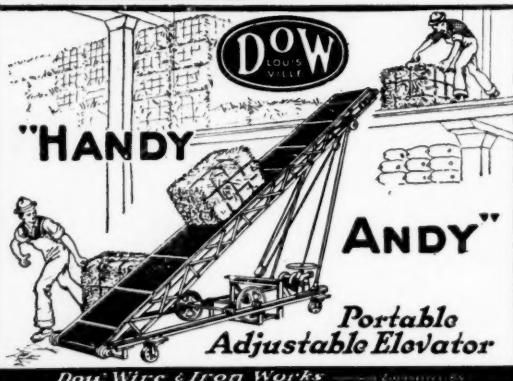
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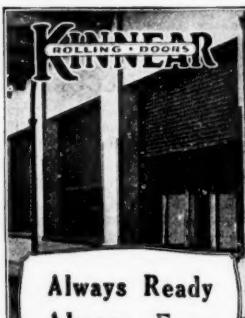
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RICHARD H. EDMONDS, Editor

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In order to avoid delays all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

PATIENCE NEEDED.

UNDER the disadvantages under which we are laboring in printing the Manufacturers Record and Daily Bulletin in Richmond, with the office force divided, part of it being in that city and part in Baltimore, it is impossible for us to acknowledge the receipt of all of the letters of enthusiastic commendation which have been coming to us from all parts of the country, nor can we begin to publish one-half the letters and special articles submitted for publication. Our readers will, therefore, we trust bear with patience the failure to acknowledge receipt of letters promptly, or the failure to print interesting matter bearing on the great issues of the hour.

THE WAY TO CREATE PROSPERITY.

NOW that the Federal Reserve Board has been forced by the administration to reverse its tactics and begin to loosen up on credit a marked change for the better can be brought about if a spirit of confidence and co-operation and optimism can be created throughout the land.

The tremendous depression of the last twelve months or more has not been psychological, as some have claimed, nor has it been due to world conditions. On the contrary, it has been due to the definite destructive work of Governor Harding and his associates of the Federal Reserve Board. One might as well stop the beating of the heart and expect life to continue as to stop the flow of credit and expect business life to continue. But since President Harding and his advisors have taken possession of the machinery of credit and reversed practically all of the policies of Governor Harding and his associates, and are forcing Governor Harding to issue statements of optimis-

mism, the time has come when business people of the country can afford to take heart and go forward, knowing that they will have the backing of the utmost stretch of power of the present administration. The financial heart of the country will not longer be shut off. It will now be allowed to beat and its pulsations will send the life-giving fluid of credit through the country, gradually bringing the almost dead patient back to life again.

Returning confidence can be greatly quickened and the day of prosperity hastened by a wide publicity campaign of the business men of the country, such as that which stimulated all the business interests of the country after the Armistice. At that time one department of the Government, wisely guided, carried on an aggressive campaign to induce merchants and manufacturers to advertise on a larger scale than they had ever done before. Almost instantly a great stimulation was given to business. This would have continued with ever-increasing momentum up to the present time but for the work of the Federal Reserve Board in cutting off the supply of credit, which is the life-blood of all trade and industry.

Once more there should be developed in every business office in the country the spirit of publicity. A prosperity campaign of advertising should be inaugurated. The great industrial corporations, even though business may not for the moment be active, should advertise on a larger, broader, more comprehensive scale than ever before. Concerns like the Steel Corporation, the Standard Oil Company and other great industries should take the lead for the good of the country as well as their own good, in a comprehensive advertising campaign. This would doubtless stimulate all other manufacturing interests to follow in the same line.

The railroads would never have gotten into the present bad shape if years ago they had intelligently appealed to the public year after year through well-directed, well-worded display advertising in the leading papers of the country. Other corporations might have saved themselves much criticism and great losses if in the same way they had met the public with a frank statement of all of their operations, and a frank reply, through intelligently worded advertisements, to the criticisms made of their operations.

The opportunity for wise advertising is greater today than ever in our history. Greater good can be accomplished for individual business interests and for the country at large by comprehensive advertising of the big industries of the country and by merchants and manufacturers, wholesale and retail.

It is a very unwise policy for business men to say that they will not advertise because there is no present volume of business justifying it. The way to create the business is to create the spirit of doing things, and each man must act for himself. Every concern that begins a campaign of advertising in its local paper, as well as in those of national circulation, helps to start the movement which eventually will bring a large volume of business to all. The time to start things is now. This country is too great

and too rich, and its resources are too vast to justify American people in sitting down and sucking their thumbs and bemoaning their fate because business is slack. The conditions which cause slackness of business are being removed. The administration is trying to do its full part. Now let the business interests of the country join and do their part, and then with a long pull, and a strong pull, and a quick pull, and a pull altogether, the good old ship of industry will sail out on seas of prosperity.

SALARIES PAID TO RAILWAY OFFICERS NOT EXCESSIVE.

INTERESTING statistics regarding the relationship of the salaries paid railroad officers to the total payroll of the railroads of the country are published by the Railway Age in reply to the charges that the railroads are wasting large amounts of money by paying "fancy" salaries, and particularly in connection with a bill recently introduced in Congress that would limit the amount paid railroad officers to \$15,000 per annum unless with the approval of the Interstate Commerce Commission.

"Of all the charges made against the managements of the railways," says the Railway Age, "this one about excessive salaries is perhaps the most asinine. All of the alleged 'fancy' salaries are included in those paid to the 'general officers.' Because some of these officers receive \$50,000 to \$75,000 a year many think the total amount paid imposes a heavy burden on those who pay the rates. The statistics of the Interstate Commerce Commission show that if the railways in the year 1920 had not paid a dollar of salary to any of their general officers, their operating expenses would have been 99.42 per cent of what they actually were."

A table showing that in 1920 the total salaries of all officers were \$92,460,835, is published by the Railway Age. This amount was about 2 1/2 per cent of the total payroll of all officers and employees, which amounted to \$3,698,216,351. It was 1.7 per cent of the operating expenses, which were \$5,826,197,474. It was 1 1/2 per cent of the total earnings, which were \$6,225,402,762. In other words, if none of the officers, general or divisional, had been paid anything, the total operating expenses would have been 98.3 per cent as much as they actually were. The officers as a whole received only 1 1/2 cents of each dollar that the railways earned and the general officers, including all those paid "fancy" salaries, received about 7 1/2 mills out of every dollar earned.

The Railway Age estimates that officers paid \$20,000 or more receive 2.3 mills out of each dollar earned, while general officers, including all those getting "fancy" salaries, receive 1.6 mills out of each dollar earned.

Discussing the question of salaries from \$25,000 to \$75,000 a year for railway officers, the Railway Age says:

"When people talk about salaries from \$25,000 to \$75,000 a year in the railroad business being excessive, they do not stop to think that successful men in all lines of business make larger incomes. There is hardly an opera star or a moving picture star who does not earn more. How long would men of ability and ambition enter or stay in the railroad business if they knew there was no opportunity in it to earn incomes comparable with those in other lines of professional and business activity? But it is absolutely necessary to have such men in important positions if the railroads are to be efficiently developed and managed; and if they are not efficiently developed and managed their service is bound constantly to grow worse and more expensive to the public."

IN DEFENSE OF RETAIL MERCHANTS.

IN a letter to President Harding the editor of the Manufacturers Record recently took up a defense of retail merchants who have been charged with profiteering and with maintenance of prices to the disadvantage of the whole country. It was pointed out in the letter to President Harding that their expenses had been heavily increased, and that if they had undertaken to slash prices in accordance with the efforts of the Federal Reserve Board it would necessarily have resulted in general bankruptcy of the retail trade of the country; and that would not have been profitable to any one.

Referring to this letter Mr. R. H. Stewart, of Greenville, S. C., writes:

"I want to thank you for your kind words for the retail merchants in your letter to the President May 23d. This is about the only kind word I have seen from any prominent writer on the retail condition.

"There has been a lot said about profiteering, and almost all that has been said has been directed at the retailer of wearing apparel; and yet if I remember Attorney General Palmer's report to Congress correctly, out of some 2,200 cases only 52 to 55 cases were made against wearing apparel stores, and from 20 to 22 convictions.

"As for retailers reducing their prices to conform with manufacturers' reductions in ready to wear garments, it is a fact that most reputable retailers reduced their prices last fall on suits and overcoats about two weeks before clothing manufacturers reduced their prices.

"I agree with you that it was not the retailers' duty to cut prices to where it would bankrupt them, simply to relieve an overproduced condition caused by manufacturers operating day and night when goods were being taken at high profitable prices.

"It seems very strange that all that has been said should be directed at a class of business that the mercantile agencies show a very large per cent never succeed."

Samples of Many Letters Reaching Manufacturers Record.

AMERICAN FURNITURE COMPANY,

Martinsville, Va., June 6, 1921.

Editor Manufacturers Record:

My entire family read the Manufacturers Record, and seem to be anxious for it when it comes. This morning at the breakfast table we discussed your editorial on the action of the Reserve Banks with regard to the unreasonable and sinful manner in which they have endeavored to coerce banks who have not felt inclined to join the system. We appreciate your righteous indignation in regard to the action of the Reserve Banks during the last 12 months. I believe you are doing more good by your editorials than you can possibly imagine.

Enclosed you will find check for \$6.50, renewal of our subscription.

A. D. WITTEN, President.

THE DAILY TARBOREAN.

Tarboro, N. C., June 7, 1921.

Editor Manufacturers Record:

I have read with deep interest the speech of former Comptroller of the Currency Williams in which he exposed the secret methods of the Federal Reserve Board in its policy of currency deflation, and I am glad that he has given the country such information.

Enough of the modus operandi of that board has been disclosed by Mr. Williams to warrant an investigation by Congress and I hope you will demand an investigation. The country is in its sad and deplorable financial plight today as a consequence of the insane and infamous policy of the Federal Reserve Board. The members who are guilty of such folly ought to be summarily dismissed from the board. The people have the right to know all of the facts concerning the operation of the board, and Congress should investigate and give them all of the facts.

I have talked with many people and have found none who have any confidence in the Federal Reserve Board as now constituted.

JAMES B. LLOYD.

"There Is No Free Breath To Be Drawn in the Sphere of So Malevolent an Influence." *Hawthorne.*

THE decision of the United States Supreme Court against certain practices of the Federal Reserve Board voiced in such language as "warfare" upon state banks, "disinterested malevolence" and kindred expressions, would make continuance in office by any man responsible for this "warfare" and "malevolence" a reflection on the moral integrity and law-abiding qualities of the American people. In effect the "warfare", by threats and intimidations to compel submission of non-member banks to the demands of the Federal Reserve Board, or else run the risk of being destroyed, very closely partakes of Webster's definition of blackmail; perhaps not so in law but certainly so in morals.

This has been the most glaring, unblushing, bulldozing scheme ever concocted and carried out in this country. So vigorous is the language of the Supreme Court against these methods that it would seem to be incumbent upon the administration to remove every member of the Board who was a party to such warfare and such malevolent practices, and also every governor and director of every regional bank who did not have the moral backbone to refuse to be a party to such a diabolical scheme. Possibly a complete house-cleaning would be a lesson which for years to come would prevent other Federal Reserve Boards from undertaking to dominate and autocratically rule or ruin every independent bank which had the moral courage to stand against such methods. The whole country would breathe more freely and business would take heart and courage would revive if the wise decree of the Supreme Court should be made the occasion for getting rid of every official guilty of the "malevolent" "warfare" and acts so vigorously criticized by the Court. Certainly the Court's action furnishes abundant justification for such a move by President Harding.

It may not be amiss, in view of the great importance of the issue at stake, to remind our readers of the remarkable wording of the Supreme Court's decision against the Federal Reserve Board.

When the Board set up before the Supreme Court its alleged "right" to collect checks against non-member banks in any way it desired, the Supreme Court said:

"But the word 'right' is one of the most deceptive of pitfalls; it is so easy to slip from a qualified meaning in the premise to an unqualified one in the conclusion. Most rights are qualified. A man has at least as absolute a right to give his own money as he has to demand money from a party that has made no promise to him; yet if he gives it to induce another to steal or murder the purpose of the act makes it a crime."

Is it possible to conceive more vigorous language by the Supreme Court of the country in reply to the claim of the Federal Reserve Board that it has a "right" to collect checks to suit itself?

And then the court, with equal emphasis, refers to the "collection of checks and presenting them in a body for the purpose of breaking down the petitioner's business as now conducted," and much more of the same kind. The Supreme Court also refers to "disinterested malevolence" in the acts committed.

It is interesting to note the full meaning of the word "malevolence." Webster defines it as "evil disposition toward another; inclination to injure others; ill will"; and adds, "see malevolent." The meaning of malevolent is given as "wishing evil; disposed to injure others; rejoicing in another's misfortune; arising from, or indicative of ill will"; and gives as synonyms, "ill disposed,

envious, mischievous, evil-minded, spiteful, malignant, rancorous"; and adds, "see malicious."

The definition of malicious is given as "indulging or exercising malice; harboring ill will or enmity; proceeding from hatred or ill will; dictated by malice, as a malicious report, malicious mischief"; and in law as meaning "characterized by, or involving malice; having, or done with, wicked or mischievous intentions or motives; wrongfully and done intentionally without just cause or excuse"; and in addition says, "malignant, virulent, clever, cunning"; and the synonyms are, "ill-disposed, evil-minded, mischievous, envious, invidious, spiteful, resentful, bitter, rancorous, venomous, baleful, sinister; * * * the word is sometimes used to imply a feeling of satisfaction at the failure or misfortune of others"; and Hawthorne is quoted as saying, "**there is no free breath to be drawn within the sphere of so malevolent an influence.**"

Senator Owen in the Manufacturers Record last year said that so great was the power of the Federal Reserve Board that bankers dare not criticize it for fear of their own existence. How aptly this fits in with Hawthorne's statement and the Supreme Court's decision!

The Supreme Court also classes the action of the Reserve Board against banks which did not yield to its par collection system as "warfare" upon State institutions. Webster refers to warfare as "armed contest." How well this harmonizes with the sworn statement of Mr. Cones and hundreds of similar cases could be given, that the men who appeared in his bank and demanded that he either sign on the dotted line for the Federal Reserve Board, or else comply with its demands, "were armed." Webster also gives the meaning of the word as "to carry on war; to engage in hostilities; to fight."

Evidently, in view of the testimony given before the congressional committee and the testimony before the Supreme Court, the Court chose its words with very great judgment.

It is interesting, in view of the methods charged against the Board, to compel non-member banks to comply with the terms of the Federal Reserve Board, or else be threatened, to quote Webster's definition of "blackmail." As a verb the definition is, "to extort money from by intimidation"; as a noun the word means, "a tribute of money, corn, cattle or other thing, anciently exacted in the north of England and the south of Scotland by free-booting chiefs for protection from pillage."

WHY GOVERNOR HARDING AND OTHERS SHOULD BE COMPELLED TO RESIGN.

GOVERNOR W. P. G. Harding of the Federal Reserve Board himself set two methods by which to test the proper functioning of the credit system.

1. "A system of credit control must always be judged by what it does to maintain a healthy condition of mind on the part of all sections and classes of the producing community."

2. "The ultimate test of the functioning of a credit must be found in what it does to promote and increase the production of goods."

Governor Harding's administration of the credit system notoriously created the most unhealthy state of mind on the part of the producing community ever known in the United States. Under the terms of his own first test he has failed.

Governor Harding's administration of the credit system has closed thousands of factories, compelled thousands of others to work on part time, has curtailed production everywhere in field and factory. He has actually himself been in conference as to how to decrease cotton production. That is what his administration has brought the country to. Under the terms of his own second test, again he has failed utterly.

Governor Harding has publicly testified and is on record as admitting that up to the middle of September it had looked as if his policy would be successful—an admission that it was a failure.

Governor Harding has repeatedly declared that there has been no restriction of credit. This in spite of the revelations of John Skelton Williams, formerly Comptroller of the Currency, and in spite of the fact that the curtailment was notorious. The facts have a way of coming out. One of the inspired apologists for the Governor Harding policies has been Harden Colfax, who writes articles on the financial situation for the Washington Post. Mr. Colfax in an article of May 21 let the cat out of the bag. He said:

"Those charged with the administration of the reserve banks had never had opportunity to test the power of high interest rates to cause business to slow up and thereby decrease the demand for bank loans and improve the reserve position. Many people were skeptical about the success of such an effort. But there is now no doubt of its efficacy."

We should say so. A loss of \$25,000,000,000 to the nation in one year would indicate that the campaign to smash business was highly successful. But Mr. Colfax continues:

"The increase in the rediscount rates of the reserve banks and the consequent increase of the rates on commercial loans by all banks had an immediate and increasingly strong influence on all business. The price of money became so high that business men found it necessary to stimulate their business so that they could pay their debts to the banks. * * * The reserve banks compelled the banks to pay in order that the reserve position might be strengthened. * * * Borrowers at banks had to turn their merchandise into cash to pay their bank loans. * * * The increase in the rediscount rate, therefore, operated to bring about a lowering of the general price level. * * * The price of money may possibly have been manipulated; it may have been arbitrarily fixed, but however it was, it was effective."

Mr. Colfax approves the policy, even if it did involve manipulation and arbitrary fixing, on the ground that otherwise there would have been a panic. The evidence is that we got the panic, anyhow. But the main point is that while Governor Harding continues to insist that there was no drastic restriction of credit, etc., we at last have the inspired writers admitting that there was a deliberate plan to force business to slow down, by arbitrary fixing of rates, and that what happened was exactly what Governor Harding had planned should happen. Business was smashed.

Twenty-five billion a year is a high price to pay for the retention of an admitted failure in office. No other nation could afford it, and this nation cannot afford it twice. **His cost to the country per week has exceeded many times the cost of the Louisiana, Alaskan and Florida purchases combined.** He has cost in one year the equivalent of the entire national debt. The money penalties imposed on Germany for four years of destruction and ruin are not greater in the capital sum than the penalty levied on the people of the United States in one year by the mere *ipse dixit* of this one man, who never was and never could be elected to fill a national office of consequence.

In all sobriety we say that the most inspiring move in reconstruction the Administration can make is to call for the resignation of Governor Harding. Business can never again have confidence so long as he is head of the Board. It is not enough that his policies are being vetoed and that a new and sensible influence is in control. There is still danger so long as the man responsible for the most colossal economic debacle in the history of the world continues to sit in his place of high authority. A man of thinner skin would have tendered his resignation, unasked, before this, in view of the prompt reversal of his policy which followed the advent of a new Administration. If he will not voluntarily go, it is time he be tendered his hat. Governor Harding should go, and the sooner he goes the better for the country.

GREAT INDUSTRIAL PROGRESS IN TWO YEARS.

THE annual summary of the industrial bureau of the Baltimore Board of Trade, prepared by George C. Smith, director of the bureau, presents exceedingly impressive facts concerning the manufacturing growth of the city during the second year of the bureau's existence, ended May 31. There were 64 entirely new industries and 99 expansions of existing establishments for the year, representing plant investments totaling more than \$21,600,000 and requiring more than 12,000 additional employees for the 163 different enterprises. For the two years that the bureau has existed there was a total of 164 entirely new industries established and 236 expansions of existing plants, requiring a total of 52,842 employees and an aggregate plant investment of nearly \$96,000,000.

Director Smith, commenting upon these results, says that the 12,000 additional employees added during the last year is nearly 70 per cent more than the total increase of employees in Baltimore during the fifteen-year period from 1899 to 1914. Branch plants of a number of America's leading industries are included and there is a wide variety of manufacturing activity, from steel and iron to clothing factories.

To show succinctly the industrial progress of the city during the last two years the following table was compiled from the United States census of manufactures:

Census	Average No. Earners	Increase in Wage	Capital	Increase in Capital
1899	66,571	...	\$107,217,000	...
1904	65,050	1,521*	146,961,000	\$39,744,000
1909	71,444	6,394	164,137,000	17,476,000
1914	73,769	2,325	177,301,000	12,864,000

* Decrease.

Total 15-year increase: Employees.. 7,198 Capital.. \$70,084,000
 Average increase per year, 1899-1914: Employees.. 479 Capital.. 4,672,267
 Total increases announced by Industrial Bureau, 2 years: Employees.. 52,842 Capital.. 95,922,700

LOST \$10,000,000 ON HIS RAILROAD.

IN connection with the application of the Louisiana Railway & Navigation Co. to the Louisiana Railroad Commission for permission to take off the night trains between New Orleans and Shreveport and to close several small stations, W. C. Moore, vice-president and general manager, stated that since the road was completed 15 years ago, Wm. Edenborn, its president and owner, had lost out of his own pocket a total of \$10,000,000. It was further alleged that the trains named were operated at a loss of \$100,000 a month. Mr. Edenborn, it is further noted, owns all the stock and bonds of the line.

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HOW THE RAILROADS WERE WRECKED BY GOVERNMENT CONTROL AND VICIOUS LABOR REGULATIONS.

HEARINGS before the Senate Committee on Interstate Commerce at Washington continue to abound in large figures concerning the burdens of the railroads. Among the impressive evidence given during the last week or so by railroad men was the following:

John G. Walber, secretary of the Bureau of Information of the Eastern Railroads, testified that under wage orders, reclassifications, etc., during the war the aggregate payroll reached \$3,698,000,000 in 1920, as compared with a total of \$1,366,000,000 in 1916, this being an increase of \$2,332,000,000. As another example which showed how interpretations of the Director-General in 1919 increased costs, Mr. Walber said that notwithstanding men of extended experience were not necessary for car repairing, and, moreover, that men of long experience could not then be obtained, the journeyman rate for the class was required to be paid. "We are informed," he continued, "that on one railroad the back payments resulting from these interpretations amounted to over \$800,000 for 1918; on another railroad \$2,670,000 was paid, which represented \$1,250,000 for 1918, and on another railroad \$826,000 was paid for 1918." He also said that in 1918 car repairers received 208 per cent more than they had in 1916, and car inspectors received 226½ per cent more.

E. T. Whiter, of the Pennsylvania Railroad, chairman of the conference committee which represented the railroads recently before the Labor Board, said that estimates that the national agreements cost the railroads \$300,000,000 annually was an under rather than an over estimate. He further testified that the provisions of the national agreements during government control requiring the railroads to allow employees an hour's extra pay each week for punching the clock, regardless of the number of hours actually worked, cost the railroads \$6,445,658 during only the first six months of 1920; also that when men employed on piece work were guaranteed the same minimum hourly rate allowed hourly workers there was a decrease of from 10 to 40 per cent in the output of the piece workers; tests showed that if they had been paid on a piece work basis they would have received from 28 to 36 cents an hour instead of about 58 cents. Piece work was finally abolished. Another instance of increased expense was cited. Under the national agreements, Mr. Whiter said that if a machinist and his helper were doing rod work the helper could not unscrew nuts on the rod bolts or the piston rod packing gland on one side of an engine while the machinist was working on the other side. Thus, a capable man had to stand idle, when he could have been doing something useful and time saving.

President Samuel Rea, of the Pennsylvania Railroad, told the Senate Committee that the system was under-maintained to the extent of \$40,000,000 and that amount would be asked of the Government; the Director-General's figures, based on the claims already presented, state it is probable that the aggregate under maintenance claims will run between \$700,000,000 and \$800,000,000. Mr. Rhea also urged that all capital expenditures made by the Government during the period of Federal control be put into the form of 15-year obligations by the roads; there is about \$800,000,000 of these expenditures which should be so funded, and the Government, continued Mr. Rea, "without loss to itself and receiving a good interest return, should be willing to fund them, instead of withholding the cash that the railroads need badly to meet current requirements, and help them surmount this difficult period."

In an address before the New York Traffic Club, Howard Elliott, chairman of the Northern Pacific Railway Co., stated that full crew laws, or as he called them, "stuffed

crew" laws, cost the railroads needlessly \$40,000,000 a year, which might otherwise be expended for the advantage of the railroads and the public. Such laws, he said, are in effect in 19 states, but they have been repealed in Indiana, Missouri and Pennsylvania. In general these laws require that any freight train of more than 25 or 30 cars must carry a third brakeman and that any passenger train having more than 3 or 5 cars,—as the case may be in different states,—must carry an additional brakeman. The argument made for them was that they were safety laws, whereas with the greatly extended use of air brakes many brakemen are no longer needed. The club decided to act in co-operation with other organizations to obtain repeal of the full crew laws.

Representatives of more than 150 railroads appeared before the Railroad Labor Board in Chicago and petitioned that the entire wage increase granted last July be wiped out. Several lines asked for a flat 20 per cent decrease in wages. John G. Walber, representing 54 Eastern roads, said that pay at the rate of "time and a half" for overtime in freight and yard train service should be abolished; it could not be fairly applied where the regulation of hours is beyond the control of the employer; pro rata payment only should be made. J. W. Higgins, representing 66 Western roads, said that the roads were not satisfied with the wage reductions proposed to take effect July 1 under the recent decision of the Board, and they asked that the whole advance of July, 1920, be cut off.

Fitzgerald Hall, general counsel of the Nashville, Chattanooga & St. Louis Railway, told the Railroad Labor Board at Chicago that railroaders in the South are making more money than any other class excepting possibly boot-leggers.

"The average pay of Presbyterian ministers—they get more than Methodists or Baptists—is \$1,800 a year. Our yardmasters get more than twice as much and switch tenders even get \$662 more," said Mr. Hall.

"Vanderbilt University at Nashville pays its professors \$3,750, the University of Tennessee pays \$2,684, Georgia Tech pays \$3,600 and the conductors on our Rome branch get \$5,735. These conductors are paid more than the judges of the Supreme Court of Tennessee."

"The Justices of the Supreme Court are paid \$5,500, and our Rome engineers get \$5,997 annually."

"Why, the engineer of our Tullahoma accommodation gets \$4,371 per annum, and this is \$371 more than the salary of the Governor of Tennessee."

DANGER TO OUR EDUCATIONAL WORK.

A NORTHERN business man in the course of a letter to the Manufacturers Record, referring to an article written some eight or nine years ago, said:

"We need the same safeguards that we needed then. Also we greatly need drastic laws to keep the German socialism propaganda out of our schools. A law forbidding any one to be a teacher or officer in a public school whose parents were born outside of the United States would be a long move in the right way. The undesirables are making a great fight to get control of our high school here; also of the infant school, over which they want to put a woman of foreign parentage who has been pro-German during the war."

The condition outlined in this letter is very similar to that which exists in all parts of the country. The pro-Germans and the socialists are working in every community in America to get control of educational work, and to worm their way into our schools, public and private, high schools and colleges alike. Eternal vigilance is the only safety.

A COMMISSION FOR A BROAD STUDY OF TRANSPORTATION.

MORE than a year ago the Manufacturers Record suggested the organization of a committee composed of a number of the foremost business men of the country, such men, for instance, as Judge Gary, Charles M. Schwab, representing the iron and steel interests, and men of equal standing representing other producing and distributing agencies, including representatives of the great agricultural interests of the country—for there are some farmers in the United States whose business judgment is as good as that of any of the great industrial leaders,—to study our whole railroad problem. We urged that no financier or banker should be on that committee. The bankers are all right in their way, but in an investigation of the transportation system of the country we should have a full study by the great business leaders not intimately identified with the financing of railroads. Our suggestion has been met in part, but only in part, by the National Association of Owners of Railroad Securities, which has organized an investigation board composed of the following engineers and experts: John F. Stevens, Col. F. A. Molitor, John F. Wallace, W. L. Darling, L. B. Stillwell, and W. W. Colpitts.

The men selected are exceptionally well fitted for their work. Mr. John F. Stevens, as chief engineer of the Panama Canal, created the organization and designed the plants which were utilized in carrying out that tremendous undertaking. He was appointed by President Wilson to help solve the Russian railroad situation in Siberia, and he has had wide experience in this country and others. Colonel F. A. Molitor has also had wide experience as an engineer and in investigation of economic questions in relation to traffic. He was supervising engineer of the Philippine Government under President Taft, and at the beginning of the war, was instrumental in organizing at Washington a system for the purchase of railroad equipment to go to France. Later he went to France and served during the war. He has also made studies and reports of railway operations in Great Britain and Brazil. Mr. John F. Wallace has had an experience equally as broad as that of the other men identified with this work. Indeed, few men in this country are better fitted for the task. Since 1914 he has been chairman of the Chicago Railway Terminal Commission. He has had wide experience as consulting engineer to many railroad properties in this country and in Canada, and as president of Westinghouse, Church, Kerr & Company, he had unusual opportunities for big construction and consulting work. Mr. Darling was for years chief engineer of the Northern Pacific Railroad and specialized on the Northern Pacific and Rock Island Railroads in effecting economies. He was one of the co-workers with Mr. John F. Stevens in the Siberian railroad situation. Mr. Stillwell has served as consulting engineer to many railroads in connection with rolling stock and electrification. Mr. Colpitts has had large experience in railroad engineering and construction work in eastern and western Canada, in the Southwestern States and in Mexico.

No member of this Board of Economics and Engineering is connected with any railroad company or any financial institution. President Warfield, in announcing this fact, says the board is unhampered by any ties of individual, railroad or financial identity or ownership, or by the influences of any particular security-owning or banking group, and they are free from the environment that attends governmental appointment.

In the organization of this Board the National Association of Owners of Railroad Securities has met one suggestion of the Manufacturers Record on which emphasis was laid, that the men appointed to investigate the whole

railroad situation should not have any banking affiliations. This is not intended as a criticism of bankers, but the railroads of the United States have so long been practically under the financial domination of a comparatively small group of New York financiers that the time has come to study the railroad problem unhampered by the views or affiliations of bankers in connection with railroad operations. We believe the National Association of Owners of Railroad Securities should now follow the year-old suggestion of the Manufacturers Record, and in addition to the group of experts which they have employed to investigate the railroad situation, should call into consultation, a commission composed of probably a dozen of the great industrial, commercial and agricultural leaders in whose judgment the entire country would have absolute confidence. We believe that Judge Gary and Mr. Schwab and others have solved far greater problems than any railroad people in this country have been called upon to solve. We believe that they have a breadth of vision and of knowledge of what is needed in the whole transportation system that would make their work and that of other men of their standing of infinite value to the country.

The report of the seven experts named by the Association will be of great value, but its value would be largely increased if there could be added a commission of ten or a dozen producers and shippers, in no way whatever interested in the financing of railroads or in the management of railroads, for a study of the entire transportation problem. This commission, indeed, might have to take into consideration every phase of transportation—by motor truck, by automobile and by water.

If a broad study of the transportation problems from every angle, and the co-ordination of transportation by highways, by water and by rail, could be comprehensively investigated by such a commission as we have suggested the country would get a light on the whole situation which it does not now have and which it can never have except through the unbiased study by a commission of men of the character we have indicated.

THERE IS HOPE AHEAD.

A SOUTHERN business man of wide experience, in a personal letter to the Manufacturers Record, referring to a paper which had been submitted to him in regard to a plan for the organization of an association covering the country to oppose the autocratic activities of the American Federation of Labor, writes as follows:

"Mr. Moore's suggestions are unquestionably of great value and constitute a clear exposition of the ruinous effects of the labor autocracy. It was this coddling of labor by Wilson, of course, that produced the extreme situation which made it possible for the Federal Reserve Board to 'get by' with its program. Many men had reached the point where they were willing to face panic and industrial disaster rather than permit the continuance of labor arrogance. Moreover, the railroad unions are holding up recovery now. * * *

"Unions based on efficiency would be everywhere welcomed. Just now it is extremely likely that Gompers will be deposed at the Denver Convention. A fight thereafter in the American Federation of Labor itself may split the organization wide open. On the other hand, it is unquestioned that the domination of the press by union labor offers a situation of grave menace and there simply must be assurances of some capable agency for waging the fight for economic freedom.

"You know, I have been convinced for some time that the nation has become too rich and its interests too varied to permit efficient government under our present forms. Even now, there is growing up in Congress the bloc system and only by courtesy are men Republicans or Democrats. One little bloc can so work in the Senate as to hold up all legislation. I should hate to see Congress become a sort of pawn to be moved by the United States Chamber of Commerce, say, on the one hand, or the American Feder-

ions, railroads, small companies or operators of large concerns, and of the people who believe in the right of the workers to the election of Labor on the other, according to the grouping of blocs or the election returns. Yet, all these movements eventually become political. That is what the country is suffering from now—eight years of labor control of Congress, and of the President.

"It would appear that the open shop movement has been very successful during the last year, and is making headway constantly. * * * We want the open shop and fair wages—not the open shop to force unfair wages. I think Judge Gary has the right idea and operates it fairly. Labor, of course, is ignorant. A permanent solution means careful handling and careful handling implies from the beginning an absolutely immovable position on basic principles on the part of employers from the beginning—as Judge Gary showed at the Industrial Conference two years ago. * * * The problem, of course, is THE problem and it may take generations to work it out.

"As you see, Governor Harding is completely reversing his position, under orders, and talks almost as a deflationist. Once let the new policy get to working and the good results are inevitable. It took some months for deflation to bring general ruin and it will take some time, of course, for sensible administration to restore the situation. The Record's victory already is overwhelming because it has forced the archpriest himself into advocacy of its views—in public. Now he says there is no reason why there should not be ample credit and that it is needed. What a travesty on his actions during the last year!"

SOME STRIKING FACTS ABOUT OUR EXPORT TRADE.

UNDUE stress has recently been laid upon the big decrease in our export figures, for this decrease is to a very large extent in values rather than in quantity, and prices have been so greatly decreased as compared with twelve months ago that values do not count for much in reporting exports and imports. It is true that in some lines of industry there has been a decrease in quantity, but in other lines there has been a marked increase.

An interesting fact in connection with our foreign trade is the very great increase in exports in many lines of goods, and especially of cotton, to Germany.

During the ten months ended with April our exports of cotton to Germany amounted to 915,781 bales, as compared with 332,567 bales for the same period in the preceding year. The exports of cotton to Germany for April amounted to 85,591 bales.

On the other hand, there was a very big decrease in the exports of cotton to Great Britain. Shipments to the United Kingdom for the ten months ended with April amounted to 1,416,708 bales compared with 3,130,039 bales in the corresponding preceding ten-month period, or a decrease of 1,700,000 bales, almost equal to the total net decrease of exports from the country. While Germany nearly trebled its importations of American cotton for that period, Great Britain decreased its imports by considerably over 50 per cent. The decreased shipments to Great Britain were due largely to the decline of Britain's export trade to the Orient, where financial difficulties, charged by leading business men of India to unwise financial management on the part of Great Britain of India's fiscal system, brought about a rapid curtailment of imports of cotton goods from England. Leading India business associations are vigorously protesting against England's fiscal management of India's affairs as having been responsible for the depression in trade.

There was a decrease of 58,000 bales in the exports of cotton to France; a decrease of 48,000 bales to Belgium;

a decrease of 90,000 bales to Italy; a decrease of 102,000 bales to the Netherlands; and a small decrease in shipments to a number of other countries, with a gain for Mexico, whose imports of cotton during the two ten-month periods jumped from 297 bales for the ten months ended with April in 1920 to 58,409 bales for the ten months ended April, 1921. China made a small increase, and Japan showed a large decrease, Germany being the only country which showed a gain of such importance as to be of commanding interest.

Germany also showed a very wonderful gain in imports of wheat from this country, which for the ten months ended April, 1921, amounted to 20,314,163 bushels, against a mere pittance of 20 bushels for the corresponding period of the preceding year.

Germany also took from us 1,606,311 barrels of flour during the last ten-month period, as compared with 144,175 barrels in the preceding ten-month period.

Our total exports of wheat for the ten months ended with April, 1921, amounted to 242,098,305 bushels, against 98,720,760 bushels in the corresponding preceding ten month period, and for the same time our exports of corn amounted to 46,541,570 bushels, as against 12,861,515 bushels for the ten months ended April, 1920.

It is a very great pity that the facts in regard to our foreign trade are not given promptly month by month, in terms of measurement or quantities rather than in terms of dollars, for values are exceedingly misleading at the present time.

An extremely interesting sidelight is thrown upon the volume of our export trade by the detailed statement just issued by the Department of Commerce, showing that in April the total tonnage of vessels cleared from this country for foreign countries was 5,209,543 tons, as compared with 4,464,672 tons in April, 1920.

The total of the ten months ended with April, 1921, was 58,871,644 tons, as compared with a total of 44,565,157 tons for the ten months ended with April, 1920.

The tonnage of vessels cleared for foreign ports by countries during the two ten-month periods under review was as follows:

To Europe	17,124,807	21,489,148
North America	21,376,901	29,711,485
South America	2,775,623	3,618,372
Asia	2,147,127	2,214,713
Oceania	646,005	778,850
Africa	494,694	1,059,076
	14,565,157	58,871,644

It is true that some of these vessels may not have carried full cargoes, and that an accurate calculation as to the weight of our export shipments cannot be made based wholly on these figures. And yet they show that during April the tonnage of vessels cleared from America for foreign ports largely exceeded the tonnage of April, 1920, and that for the ten months ended April, 1921, the gain over ten months ended April, 1920, was over 14,000,000 tons.

So much has been said about the decrease in our export trade that the vast majority of our people have been badly misled, not understanding that the decrease was measured in values and not in quantity. For instance, the average value of the wheat exported in April was \$1.67 per bushel, whereas in April, 1920, it was \$2.55 per bushel, rising steadily in May and June, until it reached an average in July, August and September of 1920 of \$2.90 per bushel for the three months. The average value of the cotton exported in April was 12 2-5 cents per pound as compared with 42.3 cents per pound in April, 1920.

AMERICA MUST LEAD THE WAY TO WORLD PROSPERITY.

IN a statement issued by the Chamber of Commerce of the United States, Mr. Archer W. Douglas, chairman of the Committee on Statistics, says:

"There is a growing realization of the fact that returning prosperity in this country depends upon the recovery of Europe."

We deny the correctness of that assertion. The prosperity of Europe, on the other hand, largely depends upon the prosperity of this country. It was our deflation of credit which helped to bring on the sudden collapse in Europe and in the Orient. American prosperity would quickly stimulate Europe's prosperity. Mr. Douglas has simply reversed the matter and put the cart before the horse. We can quicken the prosperity of this country without waiting on the prosperity of Europe, and when we have quickened American prosperity European prosperity will inevitably follow as surely as day follows night.

Our people have got into the habit very largely of looking at things backward. So small a proportion of our productive capacity, except in the matter of cotton and wheat, is dependent upon Europe for a market that we are permitting a trade infinitely small, as compared with our domestic trade, to influence our whole line of thinking.

Prosperity in America would mean a full utilization of all of the productive power of this country in nearly all lines of work, and the surplus, small as it is except for a few articles, would then find a market in Europe, because our prosperity would stimulate Europe's prosperity.

A Tokyo Japanese magazine of April, 1921, in discussing trade between the United States and China said:

"For instance, one Chinese firm bought a machine from the United States on a four month's sight draft. But when the Federal Reserve Board called in credits the firm was told that they would have to pay cash on delivery. This almost threw them into bankruptcy."

The New York Times in May, 1920, quoted a banker who had just returned from Scandinavia as discussing the influence of the Federal Reserve Board upon business interests in Norway and Sweden by saying:

"Business men follow every change in American affairs with the utmost interest. Whatever happens there they believe has a far-reaching effect on other countries, and they look to the United States as the most influential factor in the restoring of normal conditions."

This merely confirms the position which the Manufacturers Record has taken from the beginning of this deflation campaign, to the effect that deflation of credit in the United States and the breaking down of prices here startled the world and caused deflation of credit everywhere, and stopped buying power. It was not a buyers' strike as has been claimed, because a strike is an intentional act. It was a collapse of the buying power of the world due to our deflation of credit, which in the one instance mentioned by the Tokyo magazine nearly bankrupted a Chinese firm which had bought American machinery.

Some years ago, after his return from Europe, Thomas A. Edison in talking with the writer about the closeness of world trade conditions, used the unique expression "the run of menhaden on the coast of New Jersey affects the price of locomotives in Japan." Probably no other man on earth would have made a comparison so unique as that of Mr. Edison in the suggestion that even the catch of fish used for fertilizers, on the Atlantic Coast, would affect business interests, even to the price of locomotives, in the Orient.

America, with its one-third of the accumulated wealth

of the world, and with its boundless resources, affects by its pessimism or optimism, by its prosperity or poverty, the pessimism or the optimism, the prosperity or the poverty of every other country on earth. It is time for our so-called financiers and business men, who have looked only at one side of the situation, to see the other side and realize that world prosperity must come through prosperity of the United States, and that our prosperity must come first. Their prosperity will not come until we have started on the road to prosperity.

Mr. Douglas and many others have been misled by false reasoning.

RETAIL PRICES NOW AND ONE YEAR AGO.

PRICES on a large number of staple articles have shown a very material decline in recent months. The following list is offered simply as an illustration of the drop in price which has taken place in Baltimore in practically all kinds of wearing apparel as well as in canned goods and groceries. The figures show the price of a certain standard article in June of this year as compared with the corresponding month in 1920, and they are not by any means intended to show the lowest price or the highest, but simply the range in the average good store, nor are special sale prices taken into consideration. In groceries on this list the decline averages one-half, this being due in large measure, however, to the big drop in sugar. Clothing prices show a decline of 25 per cent and more, while underwear, shirts, ginghams, sheets and white goods show an even greater decline. Shoes are from 25 per cent to 33 1/3 per cent cheaper. Comparisons in every case are based on the price of a given article of a standard quality last year and the price of that same quality article this year; only where the quality is the same are the figures used.

For a given quantity of groceries and canned goods the figures are as follows:

	June, 1920.	June, 1921.
100 lbs. Standard Gran. Sugar.....	\$24.50	\$7.00
1 bushel Irish Potatoes.....	6.00	3.00
24-lb. Sack Flour.....	2.30	1.40
10 lbs. Navy Beans.....	1.20	.90
5 lbs. Head Rice.....	.90	.50
5 lbs. Rolled Oats.....	.35	.25
3 lbs. Santos Coffee.....	1.05	.60
5 pkgs. Uneda Biscuit @ 10c.....	.50	.40
3 pkgs. Kellogg's Corn Flakes.....	.75	.30
10 lbs. Pure Lard.....	3.20	1.50
12 cans No. 3 Tomatoes, @ 18c.....	2.16	15c 1.80
12 Cans No. 2 Corn, @ 18c.....	2.16	10c 1.20
12 cans No. 2 Peas, @ 18c.....	2.16	12c 1.44
10 lbs. Evap. Peaches, @ 35c.....	3.50	20c 2.00
10 lbs. Evap. Apricots, @ 45c.....	4.50	35c 3.50
3 cans No. 1 Salmon, @ 25c.....	.75	20c .60
2 doz. Fresh Eggs, @ 50c.....	2.50	33c 1.65
2 lbs. Creamery Butter, @ 70c.....	1.40	45c .90
	\$59.58	\$28.94

The following average declines are shown in men's clothing, shoes, and in ginghams, white goods and other articles:

	June, 1920.	June, 1921.
Suit of clothes.....	\$70.00	\$50.00
Suit of clothes.....	60.00	40.00
Suit of clothes.....	50.00	38.00
Shirt.....	5.00	3.00
Shirt.....	4.00	2.50
Shirt.....	2.50	1.50
Socks.....	1.25	.75
Socks.....	.75	.40
Underwear.....	5.00	3.00
Underwear.....	3.50	2.00
Underwear.....	1.75	1.15
Gloves.....	5.00	3.50
Pajamas and night shirts.....	3.50	2.50
Pajamas and night shirts.....	1.50	1.00
Shoes.....	18.00	12.00
Shoes.....	12.00	8.00
Shoes.....	9.00	7.00
Gingham, per yard.....	.39	.15
Sheets, each.....	2.40	1.75
Pillow Cases.....	.70	.45
Towels.....	.75	.50
White Goods.....		1/3 less
Wash Goods.....		1/2 less
Handkerchiefs.....		1/3 less

President Harding and His Advisers Must Take Cognizance of This Situation if They Would Restore Confidence in the Federal Reserve System.

M. R. CHARLES DeB. CLAIBORNE, vice-president of the Whitney Central National Bank of New Orleans, chairman of the National and State Bankers' Protective Association, has been one of the aggressive fighters against the par collection methods of the Federal Reserve Board. In a recent letter to the Manufacturers Record Mr. Claiborne made specific reference to the autocratic actions of that Board. Not knowing whether this was intended as a personal letter or one for publication, the Manufacturers Record asked Mr. Claiborne if that portion of his letter could be published. In reply we have the following illuminating discussion of the whole situation as seen by the vice-president of a bank with \$75,000,000 of resources, one of the foremost national bank men of the country:

"In reply to your letter beg to say that you are at full liberty to publish the paragraph referred to in my letter of May 28, copy of which paragraph I quote as follows:

"I have noted the persistent fight that your good paper has made for the last two years against the Federal Reserve Board. While my fight has not been against the Board, but merely against the par collection system which the Board has seen fit to put into effect, I must say that, in my opinion, a more autocratic or dictatorial body, unswerving and unyielding, could hardly be found, and I hope that while what we are doing may not be popular for the present there may some day be a reward for those who had the courage to express their convictions."

"The great trouble with Mr. Harding, in all this controversy of par collections, seems to be that he cannot get in his mind the fact that we have two banking systems in this country, namely, banks organized under state charters, and banks organized under the National Banking Act. So anxious is he that the Federal Reserve Board should have control and exercise its domination over all the banks, whether state or national, that he overlooks the fact completely that Congress, if it had intended, did not have the power to pass any law which could in any way interfere with state banks. It is too elementary to discuss the fact that the states of the Union are still absolutely sovereign and that the Federal Government only has such power as the states have yielded to it.

"Another pet expression of his is to tell audiences that the Federal Reserve Board is not a legislative body, but is merely attempting to carry out their interpretation of the law.

"May we ask at whose instance the very law we complain of was passed? Did not Mr. W. P. G. Harding, Governor of the Federal Reserve, appeal to Representative Glass, Chairman of the Committee on Banking and Currency at the time this whole matter was discussed before Congress, asking that this law be passed? Therefore it is not merely a desire to carry out the law, for he had this desired plan in mind before it became a law, and it is not fair to now say that he is merely carrying out the law. He was in a large measure instrumental in the passage of this Act, by appealing to the Committee as head of the Federal Reserve Board, having besides the influence which that position carried the assistance of Mr. Woodrow Wilson, then President of the United States, who also favored par collection.

"In your article which appeared on June 2, commenting on the decision of the Supreme Court, you quote certain testimony of Mr. Harding in answer to question by Mr. Reavis, but immediately following the questions which you quote, you fail to publish the most damaging answers, which are as follows:

"Mr. Harding having stated that the agents at these

points may be contributory to our being able to finally have them all do so, was asked this question of the Banking Committee. (Page 47, Hearings before Rules Committee, May, 1920)—

"The Chairman—That is, the other bankers, viewing the methods employed, rather than subject themselves to the same methods, would come to your terms?

"Mr. Harding answered, 'Possibly; yes, sir.'

"He therefore clearly admitted by the above answer that the methods of coercion used were for the purpose of intimidating and forcing other timid institutions to yield before pressure had been brought to bear on them. If you or myself were to use such methods, I am sure that we would be charged with 'blackmail.'

"Another very peculiar answer of Mr. Harding's in answer to this question. (Page 53, Hearings before Rules Committee, May, 1920)—

"Mr. Beavis—Would you not meet all the requirements and obviate all the hardships being visited on these country banks if you did what the attorney general says is your duty to do, not to clear the checks of the banks that refuse to sign a par agreement?

"Governor Harding answers: 'I do not think he says that.'

"It is passing strange that Mr. Harding answers, 'I do not think he says that,' when following is what Mr. Gregory, the attorney general of the United States, says in his letter to the Federal Reserve Board:

"From what has been said it follows that in my opinion the limitations contained in section 13 relating to charges for the collection and payment of checks do not apply to state banks not connected with the Federal Reserve System as members or depositors. Checks on banks making such charges cannot, however, be cleared or collected through Federal Reserve Banks."

It is true, as Mr. Claiborne says, that we did not publish all of Mr. Harding's testimony, but that is because of limitation of space. At the same hearings there were a dozen or so sworn affidavits as to the tactics of the Reserve Board which we would gladly have published if space had permitted, and an offer was made to secure 5,000 similar affidavits if needed.

The more Governor Harding undertook to reply to the questions raised, the more complete was the proof of his unfitness for the position. But Mr. Harding could not have been alone in this absolute domination of the Reserve Board unless the other men under him were weaklings, completely under his control. The public now knows that Mr. John Skelton Williams, a member of the Board and former Comptroller of the Currency, vigorously and aggressively fought the decisions of Governor Harding and other members of the Board, but what of the other members? It is incumbent upon Congress to call upon Mr. Williams for complete testimony as to all that he knows on the mismanagement of the Board and its effort to wreck and ruin the banking institutions which did not readily yield to its domination.

The issue is one far greater than that of merely the life of individual banks which were threatened with destruction if they did not adopt the plans formulated by the Federal Reserve Board, even though the Board had no legal or moral control over them.

The spirit of the activities of the Board is indicated by the statement issued by the Federal Reserve Bank of Richmond under date of February 7, 1921. North Carolina had passed a law for the protection of state incorporated banks against the par collection methods adopted

by the Federal Reserve Board. The Federal Reserve Bank of Richmond promptly issued, under date of February 7, a statement addressed to the North Carolina non-member banks, in the course of which it said:

"In the event you should not be willing to remit us AT PAR BY MAIL, we will be forced to present checks at your counter for payment IN CASH ONLY. Should payment in cash be refused, we will promptly return the checks to the banks from which we receive them, with a plain statement that the checks were presented by a personal representative of this bank and payment in money refused, and a proper notice of dishonor will be attached to the checks in lieu of formal protest. All such checks upon which payment has been refused will, in due course, be returned to the drawer, YOUR CUSTOMER, who will then know you have refused to pay his check in money, in conformity with universal custom, and with requirement of law, as we believe. We will feel called upon to continue to do this as long as you make it necessary."

Without waiting for a decision of the courts the Federal Reserve Bank thus undertook to continue its fight upon state banks by announcing that unless they adopted its ruling of remitting for checks at par it would present checks at the bank's counter and demand payment "in cash only." Or if the non-member bank would not pay in cash the action followed would be a notice that the check had been dishonored, returned to the drawer; and all of this was done for the express purpose of bulldozing, or of blackmailing, as one may prefer the term, the state banks to yield to the determination of the Federal Reserve System to ride rough shod over the property rights of state banks unless they became members of the Federal Reserve System or yielded to its requirements as to pawning checks.

Every man who has permitted himself to be a party to this action of the Federal Reserve Board has shown a lack of moral courage, or of ethics, which makes him unfit to hold any official connection with any department of Government work, or of the financial banking system of this country.

Mr. P. H. Bailey, cashier of the Bank of Saluda, Saluda, N. C., in writing to the Manufacturers Record on this subject says:

"It is a strange thing that an institution, such as the Federal Reserve Bank, organized for the prevention of oppression and money stringency, with aims that are splendid, should be permitted to be prostituted through the agency of apparently one man to uses that are totally at variance with the very spirit of liberty of the nation. While the small banks of the nation have not been, in many instances, affiliated with the system, they have looked towards it with hope, but the **piratical** methods adopted by those charged with the administration of this splendid principle have turned friends to enemies, and shifted admiration to your splendid publication for the spirited fight you have maintained against this organized menace to our liberties.

"There is not a small banking institution in the nation that will not breathe easier because of the decision of the Supreme Court, which it is hoped may result in causing the Federal Reserve Board to examine more carefully its charter, and adhere closer to the principles laid down for its operation."

What an amazing situation confronts this country when it can be truthfully said that there is not a small banking institution in the nation which will not breathe more freely because of the decision of the Supreme Court against the Federal Reserve Board's methods! Never, we believe, has a situation so serious as this faced the financial and business interests of the United States. It has been point-

ed out very clearly and repeatedly in the Manufacturers Record that the power given to the Federal Reserve Board is the greatest autocratic power ever granted to seven men in the world's history. That was the position of the Manufacturers Record from the day the bill was passed. At that time we said that the Federal Reserve bill had in it great power for good, but likewise great power for evil, and that the good would depend entirely upon the seven men who controlled its management.

The more thoroughly the workings of this system have been studied by thoughtful people the more deeply impressed are they with the fact that this gigantic, unparalleled financial power over the life of every business interest in America cannot continue without radical modifications, or without creating a spirit which would overturn any administration that did not bring about a correction of these conditions. Seven men with the power to turn on or off the life-giving fluid of credit hold in their hands the life or the death of every business interest in America, and there are no seven men on the face of the earth to whom such power should be granted.

The power of the Federal Reserve Board to practically blackmail thousands of bankers who did not desire, and were under no legal or moral requirements to follow its dictates, is a power greater than that which ever existed by all the trusts and combinations in the country, even if their power had ever been as great as the public supposed. If the combined power of all the great trusts and all the New York banking interests together were united for a complete domination of this country, that power for evil would not be so great as is the power of the Federal Reserve System as it now stands. Such limitless power cannot longer be permitted to completely dominate, bulldoze, blackmail and destroy the independent banking interests of the country; and now that its vast potentialities for evil are fully understood, the country will demand that not only shall the men responsible for the bulldozing campaign against state banks be eliminated from public life, but that such changes must be made as will forever keep such vast power from any small group of men who without a moment's warning to the country could bankrupt any industry in the United States, or could flood with abounding prosperity agricultural and industrial activities alike, simply in accordance with their decision as to whether to cut off the flow of credit or to inflate credit.

For three years we have been warning to the utmost extent of our power the Reserve Board and the country that a continuation of its policies would endanger the very existence of this government. The storm that is brewing, the bitter hatred which has been created, due to the wreck and ruin of millions of people, farmers and business men alike, are all but the sowing of seed by the Federal Reserve Board which will bring forth a harvest of unspeakable ruin, unless the men responsible for this condition are removed and a wiser system developed for the safeguarding of the future.

I. H. Nakdimen, President of the City National Bank, of Fort Smith, Ark., wires the Manufacturers Record as follows:

"The Federal Reserve banks in Kansas City and St. Louis have not encouraged banks in this section to lend more freely to agricultural or other interests than in the past. In fact, the St. Louis Federal Reserve Bank has written us suggesting that we sell treasury certificates in order to reduce their loans. They have increased the rate of interest on loans secured by Liberty bonds from $5\frac{1}{2}$ to 6 per cent. The increase of rate on loans secured by Liberty bonds causes Liberty bonds to go down again. Gov-

ernor Harding's optimistic views are not taken seriously because, first, he accused the country banks of carrying speculative loans; second, he placed the sliding scale of interest; third, he has insisted on the member banks calling in notes secured by Liberty bonds, repudiating solemn promises made to American men, women and children by preachers from the pulpit and others that Liberty bonds would always be worth par. Governor Harding's speech

before the Oklahoma bankers' convention, attempting to deny that the Federal Reserve banks made 200 per cent, was clumsy. He tried to explain by including the deposits and circulation in the capital stock. Such an attempt did not even appeal to a cross-roads banker. Governor Harding's resignation would be quite acceptable to a majority of banks. The future financial condition depends largely upon the man who takes Governor Harding's place."

North Carolina State Bankers vs. Federal Reserve Board

HOW SMALL BANKERS ARE FIGHTING FOR EXISTENCE AGAINST THE POWER OF THE FEDERAL RESERVE SYSTEM—AND CAN SUCH THINGS EXIST IN THIS FREE COUNTRY!

Aberdeen, N. C., June 9, 1921.

Editor Manufacturers Record:

I am in receipt of your telegram asking for additional information as to the fight made by the State banks in North Carolina against the par clearance order of the Federal Reserve Bank. As briefly as possible I will go over the major points.

Shortly prior to November 15, 1920, the Federal Reserve Bank sent one of their agents throughout the state—Mr. Wheelwright by name—to call on all of the State banks and advise them that beginning on November 15 North Carolina as a whole was going to be put on the par clearance list. When Mr. Wheelwright came round to see the writer, we told him that we were not willing to remit for our checks at par; that the revenue from this was considerable, and that we felt that we were only receiving compensation for services rendered. His answer was that unless we did agree and sign up an agreement, which he had along, that checks on our banks would be collected and presented in person over the counter and cash demanded. We refused to sign his agreement, and on November 15 our checks were sent through the mails with a statement from the Federal Reserve Bank that unless we did remit at par they would send down a man to present these checks over our counter and demand the cash.

On November 17 there was a called meeting of the North Carolina Bankers Association at Greensboro, N. C., and the question of par clearance was the main consideration before the house. The writer was elected secretary of the Bankers' Protective Association, formed by the country bankers of the state for the primary and sole purpose of trying to combat the coercion and aggression of the Federal Reserve Bank. The sentiment of the bankers attending this meeting was practically unanimous that we had no chance to combat the Federal Reserve Bank until the legislature met in January, at which time we would endeavor to get some law passed which would help protect us. A good deal of work was done before the legislature met in finding out the sentiment of the members, this not only through letters sent out from the secretary's office, but by personal solicitation by the state bankers to their own representatives.

It took some little time to get the bill introduced, and there was a great deal of question, even in the minds of members of the Legislature who were foremost lawyers in the state, as to the constitutionality of *any* bill, which attempted to curb or check the Federal Reserve Bank in anything they wished to do. The general opinion has been—now happily much less because of the dissemination of the true facts through your paper, through the state press, and especially because of the recent decision of the Supreme Court of the United States—that the Federal Reserve Bank was the Government of the United States itself, and that

any one who had different opinions from them was butting his head against a stone wall. These questions kept the Legislature and the legislative committees holding up the bill for some time, though the sentiment was practically unanimous in favor of giving some relief to State banks. All of the principal members of the Legislature felt that whatever law was passed, it would not accomplish the purpose of holding the Reserve Bank in check.

So certain were the Reserve Banks that the law would not hinder them from forcing collection over the counters that they paid no particular attention to the bill until after it was passed. They stated publicly in letters that the bill was unconstitutional and that they had ways to get around it, if it was passed. However, as soon as the law was passed they awoke to the fact that they could not do all they had expected to do, especially after the injunction was obtained against them by the state banks, of which more a little later.

Just two or three days after the passage of the bill, and when not only the Federal Reserve Bank itself, but all of the state banks as well, were up in the air, nobody knowing what was going to happen next nor what the final outcome would be, a group of bankers from the larger banks in the state, both national and state (though all members of the Federal Reserve System, I believe) went to Washington to see Governor Harding to ask for a branch of the Fifth Reserve Bank for Charlotte. I was not there, naturally, and cannot say first hand about their interview, but one of the largest bankers in the state told me personally that he was treated with absolute disrespect by Mr. Harding; that he was told that as long as North Carolina kept any such law on its books there would never be a branch of the Federal Reserve Bank, etc., etc., the whole delegation coming back with less than nothing accomplished, all because, according to Governor Harding, North Carolina legislators had seen fit to pass a state law to protect the creatures created by them in the first place! This has nothing to do with the case so far as the state banks were concerned, but it is a sidelight on the attitude of the Federal Reserve Bank.

At a hearing before one of the legislative committees, Governor Seay, of the Richmond branch, being called by Robert N. Page, who was appearing in the interests of the state banks, admitted that the purpose of par clearance was to drive all of the state banks into the Federal system. At this same hearing he later denied that he meant to say this, and that this was not the real truth, but I can furnish numerous witnesses, men of unimpeachable character, who will testify that he made this statement.

Two or three days after the passage of the law, and after we had charged the Federal Reserve Bank exchange on letters they sent through the mails (we had previously notified them that we would begin to charge exchange on a

certain date) their same Mr. Wheelwright came to our bank with some \$15,000 or \$20,000 in checks and demanded the cash. In compliance with the state law we offered him exchange on New York *at par*. This he refused to accept, and he stamped each of the checks as follows:

"This check was on the above date presented to the drawee bank at its office by a duly authorized agent of the Federal Reserve Bank of Richmond and payment in money demanded, which was refused; the drawee claiming the right to discharge its obligations by its own draft."

These checks he put in the postoffice, in spite of the fact that he was told by the writer that an injunction had been served on the Director of the Federal Reserve Bank residing in the state.

Mr. Wheelwright also had checks drawn on a branch of Page Trust Company at Hamlet, and we left together on the train for that point. I had made arrangements to have the sheriff on hand to serve the injunction on the representative of the Federal Reserve Bank, and as soon as he arrived at Hamlet this was done. This action on the part of the state banks, certainly justified in the light of the action of the Federal Reserve Bank, upset all of the plans which they had made to force collection. Our only problem then was to get the state banks to come in as parties to the injunction, so that they could feel assured that their checks would not be returned dishonored. The statement of the Federal Reserve Bank itself that they had more than \$200,000 in checks tied up in Richmond, which they could not return to the parties from whom they received them because of the injunction forbidding them, and for which they claimed under the law they could not accept exchange at par, bears out the fact that the state banks had their hands full for some time. Checks were being dishonored wherever the state bank was not protected by the injunction; the merchants and the bankers of Richmond refused to handle checks drawn on North Carolina banks; the whole situation was in an uproar, and the future could not be seen at all.

However, after numerous letters, the situation gradually quieted down, and at this time the banks which are under the injunction are having no real trouble in collecting from the various collection agencies the nominal amount of one-eighth of one per cent on their checks. There certainly is no use to add to the length of this letter by trying to justify exchange as such. Even if it was totally wrong and not, as we claim, a reasonable compensation for a service rendered, we would still have the right, as we see it, to do as we pleased without any interference from an outside corporation (*not* any agency of the government).

The injunction which we obtained in the state courts was temporary, and a hearing of this was had before Judge J. Bis Ray at Monroe. The Federal Reserve had half a dozen attorneys on hand to argue their side of the case, and asked for removal to the Federal courts. This was denied by the state judge, both on the grounds that the amount involved was less than \$3,000, and because of the fact that the question was purely that of a state law, passed by the Legislature of North Carolina, and he also advised them that the injunction would be made permanent. The case comes up before the Federal judge in Charlotte, N. C., on June 20, and we are confidently looking to him, especially in the light of the Georgia decision, to remand the case back to the state courts. In either event we are going to appeal the case until it reaches the Supreme Court of the United States, and with their statement before us that the demand for cash over the counter of a bank is a "qualified right," it seems to the writer that the Federal Reserve Bank of Richmond is wasting both time and money which ought to belong to the people of the country.

There are, of course, some bankers who do not wish to charge exchange on their checks, this because of competition of national banks in their own town, or for other reasons. We have no cause to complain of their foregoing this revenue if they want to work for nothing, but we do claim that every state bank has the full and unimpeded right to collect a reasonable exchange fee if it wishes to do so. There are in the state at present more than two hundred bankers who wish to charge exchange—some of them whose very existence depends on their charging exchange—but who are afraid of retaliation by the Federal Reserve Bank. Most of these little banks are hard pushed. Their credit is limited at best. They not only fear that if their checks are returned dishonored it will cause a run on their bank, but they are equally afraid that the Federal Reserve Bank in some way will cut their credit off with their correspondents. If I did not know scores of such bankers I would certainly never have another word to say in connection with this fight, because those of us who are protected by the injunction, and especially now since the Supreme Court has rendered its decision, are getting our exchange, and are having no trouble, but knowing that other banks are being cheated out of their just dues and rights through intimidation, express and implied, by the Federal Reserve Bank, I am still anxious to see something done to convince these banks that it is not now suicide for them to collect exchange to which they are entitled, not only by right, but by long years of business custom.

There seems to be one slight difference in your experience with members of the Federal Reserve system and ours. You state that they are all hard-boiled. So far as policies go and actual meaning, we agree heartily, but those members of the system with whom the writer has come in contact are experts at politeness and courtesy. It is the iron hand in the velvet glove—sort of gum-shoe work—but we cannot help but remark that the Fifth district folks try to put a sugar coating over some mighty bitter pills which they have been giving out.

In concluding a very long relation of the facts, please let me say that I think nothing has brought the people to a realization of the fact that the Federal Reserve Bank is, or ought to be, the servant of the people, rather than their master, as much as your aggressive fight against their unfair and unreasonable policies.

H. A. PAGE, JR.,
Treasurer Page Trust Co. and Secretary North
Carolina State Bankers' Association.

Textile Mill Notes.

The announcement has been made that C. M. Alexander of Columbia, S. C., has purchased an interest in the Reynolds Cotton Mills Co. of Bowling Green, S. C., and that a number of improvements will be made both to the mill and village, including the installation of addition equipment.

Reports state that the establishment of a branch plant at Griffin, Ga., is under consideration by the Lowell Bleachery of Lowell, Mass.

Construction on the new plant of the Roseland Spinning Mill at Lincolnton, N. C., previously reported, is nearing completion. The equipment will include 5,000 spindles for the production of single 30s in cones, tubes and warps, and 26s to 36s on tubes and cones. The building plans, provided for a 160 x 82 foot brick mill building with picker and engine room additions. The president of the company is R. L. Goode of Charlotte.

An order for yarns from a Scotland company has been received by the Neely Manufacturing Co. of York, S. C., according to W. B. Moore, president and general manager of the company which is now engaged on the new order.

ACTIVITIES NOTED THROUGHOUT THE SOUTH

More Than \$30,000,000 in Proposed Southern Construction Activities for Week Ended June 10.

The record of contracts awarded and contracts to be awarded throughout the South as compiled for the week ended June 10 from the construction columns of the Manufacturers Record involves the expenditure of more than \$30,000,000, including \$22,397,100 in contracts to be awarded, initial announcements of which were made during the week, and \$7,990,100 in contracts actually awarded. The report for the preceding week involved \$8,007,000 in contracts awarded and \$22,293,000 in contracts to be awarded.

Roads, paving and bridges hold first place in the amount of money involved, while miscellaneous enterprises rank second. School building construction stands third in the classification list. The contracts awarded for road construction during the week represented projects which will necessitate an expenditure totaling approximately \$3,735,000, while the announcements of projects for which plans have been made and bids requested in the near future represent a contemplated expenditure of \$8,529,000. Miscellaneous enterprises for which contracts were awarded represent a total expenditure of \$1,586,600, while those for which initial announcements were made regarding contracts to be awarded will necessitate a total investment of \$4,593,000.

Construction of apartment houses and hotels is maintaining a prominent place in the list of construction activities in the South. During the week \$782,000 is the total of contracts awarded for this class of structures, while \$940,500 represents contracts to be awarded. Construction of church buildings involves \$275,000 in contracts awarded and \$1,100,000 in contracts to be awarded.

SUMMARY FOR THE WEEK.

	Contracts to be awarded.	Contracts awarded.
Dwellings	\$ 363,600	\$ 147,000
Apartment houses and hotels	940,500	782,000
Bank and office buildings	450,000	62,000
Church buildings	1,100,000	275,000
School buildings	1,724,000	766,000
Store buildings	375,000	212,000
Association and fraternal	1,012,000	3,735,500
Roads, paving and bridges	8,529,000	50,000
City and county projects	50,000	156,000
Sewers, drainage and water works	3,260,000	268,000
Miscellaneous enterprises	4,593,000	1,586,600
	\$22,397,100	\$7,990,100

\$7,500,000 for New Agricultural College for Louisiana—To be One of Greatest Institutions of Kind in the Country.

Baton Rouge, La., June 7—[Special]—Final passage of an ordinance by the Constitutional Convention making \$7,500,000 available for the construction of an agricultural and mechanical college means that Louisiana will, within the next three years, have one of the greatest institutions of the kind in the country.

The foundation work of this great enterprise was laid by Governor John M. Parker, who, during his campaign for election, made the construction of an agricultural college the chief plank in his platform.

After his inauguration Governor Parker went to work to find the money to build the college. He devised a plan to impose a severance license tax of 2 per cent on natural resources, such as oil, gas, sulphur, salt, lignite and other minerals. The Legislature passed a law imposing the license tax, which is producing a revenue of about \$2,500,000 a year.

The Constitutional Convention, now in session, allocated \$5,000,000 of the severance tax for the construction of the college, which, with the \$2,500,000 previously appropriated by the Legislature, will make a total of \$7,500,000 available for that purpose. In other words, the Constitutional Convention confirmed the \$2,500,000 appropriated by the Legislature and added \$5,000,000 more.

Then, to insure the success of the agricultural college, the Constitutional Convention inserted a provision in the ordinance imposing a half mill tax annually after January 1, 1925, for the support and maintenance of the institution. This tax will yield about \$1,000,000 a year.

The agricultural and mechanical college will be operated in connection with the Louisiana State University. The official name of the institution is the Louisiana State University and Agricultural and Mechanical College.

The State of Louisiana has purchased a tract of land embracing over 2,000 acres, about two miles south of Baton Rouge, on which the new university and agricultural college will be built.

Construction work will begin as soon as Governor Parker can have the plans drawn. All of the buildings will be constructed out of steel, concrete and brick, and will be fireproof and modern in every respect.

When the new university and agricultural college is completed the state will abandon the old university buildings, located in the heart of the city of Baton Rouge. The old university grounds cover about 125 acres. A portion of this land probably will be sold by the state for residential purposes and the remainder used for a public park and for the location of other state buildings and departments.

\$10,000,000 Building Program for St. Louis.

St. Louis, Mo., June 11—[Special]—Building operations representing a total expenditure of approximately \$10,000,000 have already been started or will be underway within the next few weeks here. Ground was broken last week for the erection of two apartment buildings on Kingshighway and Lindell boulevard, which are a part of a group to cost \$5,000,000. Plans have about been completed for a \$1,500,000 apartment-hotel at Grand avenue and Lindell boulevard. Five large residences costing in the neighborhood of \$50,000 each are to be built just west of Union avenue. Plans have been completed for a \$2,000,000 hotel at De Baliviere avenue and Delmar boulevard.

Miami Building Record Broken in May.

Miami, Fla., June 11—[Special]—The high record established in May, 1919, when \$567,800 in building permits were issued, was surpassed last month when permits having a total valuation of \$606,000 were issued. Last year the biggest month was June with \$521,180 in permits. Coupled with the big decrease in the cost of building an idea may be had of the vast amount of construction under way here. Hotel and apartment house construction totals \$123,000 and two buildings costing \$50,000 each were started while twelve permits were for buildings costing more than \$10,000 each. A total of 77 dwellings was started, the number for the year being 405.

Forth Worth Building Permits Exceed \$325,000.

Forth Worth, Texas, June 11—[Special]—May building permits totaled \$326,331. During the month a total of 114 was issued having an average value of \$2,700.

Glass Plant Making Extensive Improvements.

Fairmont, W. Va., June 11—[Special.]—Contracts have been awarded by the Monongah Glass Co. for the installation of new machinery and making of improvements to its plant. Two R. D. Wood Producers are to be installed together with the necessary coal handling and conveying equipment, including a 250 steel coal bunker for each producer. The work has been laid out to permit of the installation of six additional producers later on, to be cared for by the same coal handling equipment. The Link-Belt Co. of Philadelphia, is installing the coal-handling equipment. The towers and galleries for the elevator and the belt conveyors, including the bunkers, will be erected by the Pittsburgh-Des Moines Steel Co., of Pittsburgh, Pa. The producers have been purchased and are on the ground.

Masonic Temple at Birmingham to Be Enlarged.

Birmingham, Ala., June 13—[Special.]—Bids on alterations and additions to the Masonic Temple building here will be received until June 20. Plans call for a Shrine auditorium seating 3,500; a small auditorium seating 750; three new lodge rooms; banquet rooms; two street fronts 190 and 175 feet, each three stories high, of Indiana limestone or white marble. Bids will also be received on electric passenger elevators, stage equipment, curtains, draperies, lodge room furniture and other necessary equipment. The architects are Warren & Knight, Empire Bldg., and H. B. Wheelock, Steiner Bldg., associated.

Building Operations Reviving at Memphis.

Memphis, Tenn., June 10—[Special.]—A revival in building operations in Memphis in the last 60 days has gathered momentum, with the result that building permits issued in May, 1921, show an increase of 65 over the corresponding month of last year, while the value of new structures exceeds by \$99,194 the value of buildings for which permits were issued in May last year.

In the first five months of the year, the city has given 1,090 building permits, an increase of 243 over the corresponding period in last year. Of the permits issued last month, 83 were for dwellings.

Exposition of Fort Worth Manufacturers.

Fort Worth, Tex., June 11—[Special.]—The first annual Manufacturers' Exposition of Products made in Fort Worth recently held in the Chamber of Commerce building was a decided success. Because of lack of space 50 applicants were prevented from exhibiting, but 82 manufacturers had booths. Between 20,000 and 25,000 people visited the exposition during the week. T. W. Robinson, vice-president of the Mistletoe Creameries Co. of Texas, and Sam D. Triplett, assistant manager of the Stripling-Jenkins Co., directed the management of the exposition.

Dallas Building Permits Total \$1,329,000.

Dallas, Texas, June 10—[Special.]—During last month 396 permits having a total valuation of approximately \$1,329,661 were issued here. Total residences numbered 284 costing \$781,365. In addition permits were issued as follows: 12 business houses, \$83,700; 90 additions and repairs, \$158,930; 37 outbuildings and fences, etc., \$19,866; 4 church buildings, \$41,500; and 5 theatres, \$44,300.

Springfield, Mo. Permits Near \$100,000.

Springfield, Mo., June 11—[Special.]—Forty-five permits issued here during the last month have a total valuation of approximately \$100,000 including nine residences costing from \$1,600 to \$20,000.

Water Power Development Urged for Hugo.

Hugo, Okla., June 11—[Special.]—Surveyors are at work preparatory to submitting data for a permit from the Federal Water Power Commission at Washington for the Hugo water power project, being advocated by the local Chamber of Commerce. It is possible to develop 150,000 horse power at Mountain Fork Unit, 100,000 h. p. at Little River and 50,000 h. p. at Kiamichi River, which are respectively 54, 30 and 20 miles from Hugo. It is planned to build the project in units to be constructed as the demand for power increases.

\$700,000 Building Program for North Carolina College.

Greensboro, N. C., June 11—[Special.]—A building program involving the expenditure of \$700,000 has been adopted by the North Carolina College for Women. This includes work to extend over a period of two years which will be started as soon as practicable. It includes three dormitories to house 130 students each; the completion of the west wing of the McIver building; and enlarging and rearranging the library.

New Capital in Birmingham in Five Months Exceeds \$8,500,000.

Birmingham, Ala., June 11—[Special.]—During the past five months new capital in established concerns and those recently organized totals \$8,683,510, or at a rate of \$1,736,000 a month. The record for 1920 was \$16,000,000, and if the present rate is maintained this will be exceeded. During 1918 new capital totaled \$5,965,000 and in 1919 amounted to \$6,800,000.

Wage Cut Stimulates Building Activity in Norfolk.

Norfolk, Va., June 13—[Special.]—Home building activity here is increasing rapidly as summer draws near. A number of large projects which have been under consideration for some time are expected to materialize this month, and bids for about \$2,000,000 in new construction have already been called for. The wage cut of the building trades workers which went into effect last month is responsible for a great deal of renewed activity.

Ten New Industries at Fort Worth.

Fort Worth, Tex., June 11—[Special.]—During the past two months ten new manufacturing enterprises have started here according to the report of Roscoe Addy, industrial commissioner of the Chamber of Commerce. In addition plans are under way for a large garment factory as well as a biscuit factory. A \$1,000,000 lubricating and wax plant is nearing completion for the Transcontinental Oil Co.

Memphis Building Activity Increases Over Last Year.

Memphis, Tenn., June 11—[Special.]—Valuation of 251 permits issued during last month was \$788,812, as compared with a value of \$687,618 for 161 permits issued in May, 1920. During five months this year 1,090 permits including 276 dwellings have been issued as against 847 permits including 211 dwellings for the same period last year.

Houston Permits Valued at Nearly \$950,000.

Houston, Texas, June 11—[Special.]—Building permits for May numbered 659 representing an expenditure of \$846,341. A marked increase is shown in the number of dwellings of from three to five rooms each, while a number of dwellings containing from seven to ten rooms are being erected.

Labor Cost in House Building—Sample Job of a Baltimore Dwelling

The labor cost entering into the construction of a modern, two-story frame, cottage-style dwelling is approximately 75 per cent of the total cost in Baltimore under present conditions. This takes into consideration all of the labor items which are involved in the manufacture of the materials, in their transport by water or rail to their final destination, and in the actual erection of the house itself. The figures on which this conclusion is based are the result of an analysis of production costs in several industries engaged in the manufacture of various building materials and from figures representing actual building costs today.

The actual cost of assembling and fabricating the materials into the completed house after they have been delivered on the building site is 35 per cent of the total cost of the dwelling. The cost of lumber, building materials and necessary supplies of all kinds is approximately 45 per cent. Overhead and profit is about 15 per cent, and incidental expenses such as building permit, insurance, water meter, etc., amount to about 5 per cent.

The supplies delivered at the building site for use in house construction in each case represent the finished product of some manufacturer. For instance, in order to determine the actual cost of lumber, its value on the stump must be considered. The statement of the Southern Pine Association for the month of February, 1921, shows an average cost of producing and shipping per thousand feet of lumber of \$24.22, and this does not include interest on loans or invested capital, while stumpage including purchased logs averages \$5.41. Other items in the final cost of lumber are milling, \$5.79; total manufacturing, \$12.76; general and administrative, \$2.92; depreciation, \$1.34; shipping and selling, \$1.79; making a total cost without stumpage of \$18.81. Hence, the stumpage value is approximately 22.33 per cent of the total cost. Similarly, other materials may be traced back to their original state, and in every instance labor figures prominently, and the overhead cost of manufacturing and profits accrued must be considered.

A Baltimore brick manufacturer advises the Manufacturers Record that in the cost of producing and delivering brick, upwards of 90 per cent of the total income for the year 1920 went towards labor, plant operations and upkeep. However, the output for the year exceeded sales and the labor cost was necessarily high compared with receipts, but for an average year's operation the manufacturer estimates that labor costs, plant operation and upkeep, approximate 85 per cent of the total income.

Itemized List of Expenditures for Labor and Materials in Two-Story Dwelling.

	Labor cost	Materials cost (including overhead and profit)	Total cost
Architect's fees	\$50.00		\$50.00
Building permit.....		10.00	
Excavation for cellar, porch piers, foundation, wall footings, etc., at 70¢ per cubic yard	52.80		52.80
Foundation work:			
a—Building forms for concrete walls	105.50		
b—Cement—\$4 per bbl. Baltimore delivery with credit of 80¢, for returned bags—25 bbls. at \$3.20..		\$85.00	
c—Sand and gravel; sand, \$1.30 per yard; gravel, \$2 per yard.....	49.50		
d—Removal of forms, cleaning boards and extraction of nails	28.00		
e—Pouring concrete—			
1—Labor	55.00		
2—Hire of mixer.....		323.00	
		25.00	

Cess pool for sewerage facilities:			
a—Labor—\$2 per foot of depth 25 feet deep,.....	50.00		
b—Materials—brick and concrete work; second hand brick at \$12.50 per M and \$2.50 for delivery... ..		35.69	
Plumbing:			
a—Fixtures and auxiliary supplies including all necessary materials.....	271.09		
b—Labor—complete cost of installation	80.00		
Heating (hot water heating system):			
a—Furnace, radiators, pipes, and including all necessary materials.....	435.09		
b—Labor—complete cost of installation	140.00		
Electric lighting and wiring:			
a—Fixtures, wire and all necessary materials.....	115.00		
b—Labor—complete cost of installation	85.00		
Roofing* (main roof, front and rear porches and projections):			
a—Materials—complete cost,	250.00		
b—Labor—complete cost of installation	100.00		
Painting—interior and exterior three coats each:			
a—Materials—cost complete,	130.00		
b—Labor—cost complete....	150.00		
Plastering and lathing:			
a—Materials—cost—hardwall plaster, white finish, hair, calcine plaster and sand (laths included in lumber bill)	140.00		
b—Labor—lathing and placing one brown and one white coat	256.00		
Cement walks:			
a—Materials cost	30.00		
b—Labor cost.....	60.00		
Fireplace and chimney combined, and piers under porches, and brick steps:			
a—Materials—cost complete,	161.75		
b—Labor cost complete.....	118.00		
Lumber and building materials:			
a—Lumber, flooring, finish, siding, cornice, inside and outside trim, including all items for complete house.	1,879.65		
Hardware:			
a—Nails, hinges, door locks, transom lifts, sash locks, flashing tin, joist hangers, sash weights, etc....	117.50		
Millwork:			
a—Sash, doors, window frames, kitchen cabinet, etc.	175.00		
Carpenter work:			
a—Complete cost.....	950.00		
Leveling and grading grounds:			
a—Labor cost.....	50.00		
Insurance			
		\$2,360.30	\$1,185.40
			\$6,605.70

* The price of roof for this job averaged \$21.00 per hundred square feet. Price of slate this quality is \$8.00 per square ft. o. b. quarries. Freight \$2.40.

Labor Scale for Construction of This House—Eight Hour Day.

Bricklayer	\$11.00 per day.
Bricklayer helper.....	5.20 per day.
Carpenters	7.20 per day.
Ordinary laborers.....	2.40 per day.
Painters	5.60 per day.
Plumbers	8.00 per day.
Steamfitters	8.00 per day.
Lathers	4.00 per thousand.
Electricians	7.20 per day.

The dwelling for which these figures are given is a two-story frame structure 26 by 31 feet, erected upon a lot 52 by 150 feet fronting upon a 70-foot street in the suburbs of Baltimore. The entire cost of the dwelling is \$6,605.70 and of the lot \$925, making a total of \$7,530.70. The first floor is as follows: Reception hall, 8 by 13 feet; living room, 13' 6" by 17', with a built-in fireplace, having a brick mantel and tile base; dining room, 13' 6" by 15'; kitchen, 13' by 11' 10"; pantry, 5' 6" by 7' 4"; rear porch, 4' by 5' 6". The second floor layout is as follows: Four bedrooms, 10' by 10' 4", 10' by 14' 6", 11' 2" by 12' 9", 13' 6" by 12' 7"; bathroom, 6' by 10'. A porch 9-feet wide extends across the entire front of the house, the approach being by brick steps. There is a cellar under the entire house, the foundation being of concrete, 12-inch walls below grade and 8-inch above. Brick stairs lead to the basement from the grade. The roof has a plain dormer window on the front, and is covered with No. 2 Chapman slate; the cornice extends 30 inches so as to cover the projections in the main structure, and is boxed-in using y. p. partitions 3 1/2 inches wide.

The house is heated by hot water system containing 550 square feet of radiation, 26-inch radiators being used. The boiler has a rating of 975 square feet. Wherever possible the piping is concealed. A radiator is provided for each room in the house with the exception of the pantry. The system is guaranteed by the heating contractor to keep the house at a temperature of 70 degrees F. with an outside temperature of zero degrees F. In addition, a 24-gallon tank is provided for hot water to be used in kitchen and bath, and a coil for this purpose is installed in the furnace.

Bathroom consists of first quality enamelware and the workmanship is first class. Fixtures are as follows: Built-in bath tub, 5', with exposed fittings, heavily nickel plated; 20" by 24" stand lavatory; siphon action closet. In addition, a 20" by 42" sink with back and drainboard in one is installed in kitchen.

All electric wiring is concealed. Sidewall lights are used in the bed-rooms and living room. In the other rooms and halls, hanging fixtures are used, individual switches being installed for each light-unit; in addition, there are fixtures on the front and rear porches and lighting is also provided for the basement.

Cypress laths are used throughout and plastering consists of one brown coat and one white finish coat.

First quality paint is used inside and out, three coats being applied to each surface.

Cess pool is provided for sewerage facilities. Waste from the kitchen is carried away by surface drain. Pool is 4' in diameter and 25' deep and lined with one thickness of hard common brick, covered with a concrete slab.

Mortise locks are used throughout, the finish being antique in old bronze with hinges to match.

In construction of the house 2 by 4" studding is used placed on 16" centers and doubled at all corners, door and window openings; all studs are dressed on two sides.

First and second floor joists, as well as the porch joists, are 2 by 8" Va. pine, also placed on 16-inch centers and doubled under all parallel partitions and at all framing about the fireplace, chimney, stairways, etc. Ceiling joists as well as the main and porch roof rafters are 2 by 6-inch placed on 16-inch centers; the hip rafters on the main roof are 2 inches by 8 inches. Dressed culls are used for side wall and floor sheathing, run diagonally on the side walls for bracing. Tongue and groove roofers are used as a sub-floor on the ground floor. Fireproofing consisting of concrete to the height of the washboard is provided on both the first and second floor. Waterproof building paper is used to cover the entire side walls before application of the Colonial siding used. Interior floors

are 4/4" Georgia pine. And the porch floor is 5/4 Georgia pine. Tin flashing is provided over all first floor door and window frames. Fir partition is used as a ceiling for the front and rear porches. Sanitary casing and washboard is used throughout the building.

The doors are of the conventional 5-panel type, the majority being 2' 6" by 6' 6". Exterior doors have solid bronze locks. The front door has side lights, 10 inches wide and a transom 10 inches high and is provided with 15 lights in the upper half. A fine panel door with 12-inch transom is used for the rear door.

The carpenter work is first class. The grades and quality of lumber and building materials used should be taken into consideration in arriving at the value of the completed house. The floors of the house and porches are No. 1 Georgia pine. Ceiling for porches No. 2 Y. P. partition, and the cornice of similar material, all inside and outside trim is No. 2 Y. P. The siding used is B & Better N. C. pine. Window frames and No. 1 Y. P. exterior doors were No. 1 W. P. and inside doors Y. P. with birch panels. Pressed brick are used in the fireplace, and 6 by 6-inch for the fireplace. Plaster consists of a brown coat and a white coat, the latter being applied after the first had been allowed to dry thoroughly.

The grounds surrounding the house are graded to properly shed the water, and concrete walks 3 feet wide are laid from the front pavement to the porch steps and from the rear steps to the garage in the rear.

The cost of a similar house could be considerably reduced by small changes in materials and construction. For instance, it is possible to effect a saving of approximately \$200.00 by using imitation slate asphalt shingles in place of slate. By using an ordinary chimney for the kitchen range and furnace rather than a built-in fireplace a saving of about \$175.00 may be realized. By installing a bath tub of ordinary design and a wall style lavatory and a kitchen sink with a separate drain board more than \$100.00 may be saved. Similarly yellow pine laths may be used instead of cypress laths, resulting in a saving of approximately \$50.00. By not laying a sub-floor, about \$50.00 may be cut from the final total. Economy may be practiced by using shingles instead of colonial siding and having an open cornice rather than one boxed-in. These few instances noted above will insure a saving of nearly \$600.00, thus reducing the material cost by that much or by approximately 15 per cent.

Knoxville Building Progress Far Ahead of 1920.

Knoxville, Tenn., June 13—[Special.]—During May 140 permits with a valuation of \$353,337 were issued here, as compared with 114 permits valued at \$167,056 issued during the same month in 1920. The list follows: Brick church, \$120,000; 6 small frame stores, \$4,200; 4 brick dwellings, \$38,400; 50 new frame dwellings, \$136,800; and 78 additions, alterations and repairs, \$52,537.

Building Permits Close to \$500,000 in Jacksonville.

Jacksonville, Fla., June 11—[Special.]—During May 289 permits representing an approximate expenditure of \$484,546 were issued here. This included 55 dwellings, \$153,350; one apartment, store and lodge building, \$100,000; 2 Sunday school room buildings, \$105,000; 4 stores, \$39,750; and miscellaneous permits.

Durham Permits Total Over \$150,000.

Durham, N. C., June 13—[Special.]—Thirty permits with a valuation of \$150,925 were issued here in May. This included 17 for new work to cost \$98,665, and 13 for repairs to cost \$52,260. Practically all of the permits were for residential construction.

CALIFORNIA TOPPERS IN LOUISIANA.

By C. W. Hussey, Chief Engineer, C. B. Roberts Engineering Company, Boston.

The new topping plant of the Louisiana Oil and Refining Company as shown in the accompanying illustrations, was placed in operation last December at Gas Centre, near Shreveport. All standard equipment was utilized in its construction, and the main part of the plant, that is the battery of stills, was made of pipe and pipe bends. The general contract was handled by the C. B. Roberts Engineering Company, no sub-contracts being awarded.

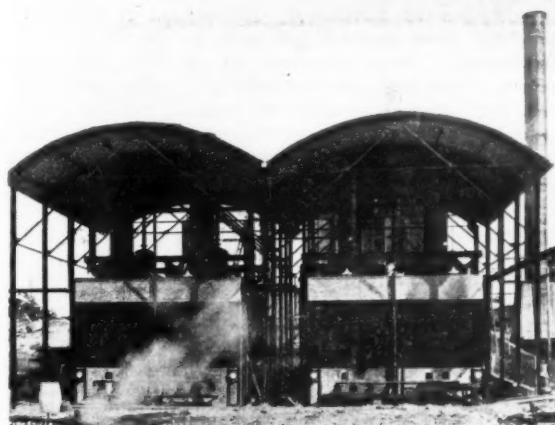
The shifting of oil production and the development of new fields is accompanied by necessary expansion of transporting facilities or by the extension of refinery capacity. The most common refinery plant is the topping or skimming plant which is used for removing the light hydro-carbons from petroleum by continuous distillation. There are two types of topping plants in general use, as represented by the shell type, where the crude oil is pumped into a shell or drum superimposed on a furnace setting; and the pipe retort type. The latter type consists of a series of pipes traversing a brick setting or fire box where the necessary heat is supplied. Crude oil is pumped through these pipes and passes to an overhead drum where the distillate is separated out.

A great deal of interest has been aroused by the use of this type of still in Louisiana, and the results have been highly gratifying to all concerned.

The use of the pipe still had been well established on California crude oils, but this installation is the first one to operate on Louisiana crude. The crude oil is fed to the stills through a heat interchanger, where the high heat of the residuum is given up to the incoming crude. This serves to cool the residuum sufficiently to allow storage, and a portion of the heat is returned to the still. The crude oil then passes through the heated pipes in the furnace at a proper velocity to suit the process and is sprayed into a drum which is mounted above the pipes in the still. In this drum the separation is completed and the vapors pass overhead to the condenser boxes and are condensed. The streams of condensed distillate are led through lock boxes placed in the pump house, and thence to the running tanks. The still, condensers and running tanks are placed to take advantage of the nat-

ural contours of the property on which this plant is erected.

As is usually the case in the oil districts, the water supply is limited, making necessary a cooling tower for furnishing circulating water of the proper temperature. This equipment proves very satisfactory in handling all the condenser water required to cool and condense the vapors from the stills.



SHOWING PIPE STILLS IN TOPPING PLANT.

The total distillate at the stills amounts to eighteen to twenty per cent of the crude charged, and the losses are about one per cent. The capacity of this small plant is 7,000 barrels per day and has been easily maintained in continued operation.

For so small and compact an installation, the capacity is very high and the installation has proved the California type of pipe still to be well adapted to Louisiana crude.

Building Permits in Galveston Increase.

Galveston, Tex., June 11—[Special.]—During May 385 permits with a total valuation of \$115,114 were issued, compared with 429 permits totaling \$101,402 for April. Frame buildings totaling \$62,350 form the major portion of the total.



TOPPING PLANT OF LOUISIANA OIL AND REFINING CO., SHREVEPORT, LA. BUILT BY C. B. ROBERTS ENGINEERING CO., BOSTON, MASS.

Fertilizer Sales and the Cotton Crop.

By C. A. Whittle, Soil Improvement Committee, Atlanta.

"As is the use of fertilizers so is the cotton crop" is the statement of J. N. Harper, a well known crop statistician and student of southern agriculture. In proof of this statement a graph designed from Government statistics has been made for Georgia, South Carolina and North Carolina.

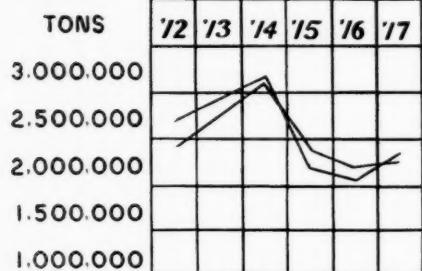
In 1914 there was a most violent fluctuation in the consumption of fertilizers. It dropped from around 3,250,000 tons to 2,123,000 tons in the three States mentioned. What happened to cotton? The yield dropped from 5,183,000 bales to 3,742,000 bales.

A study of the accompanying diagram will permit one to visualize how closely cotton production followed the consumption of fertilizers during a period that offers points of similarity to the present year.

COTTON YIELDS AND FERTILIZERS USED

AS SHOWN BY U. S. DEPT.
OF AGR. REPORTS

FERTILIZER USED



AVERAGE N. C., S. C., GA. (U. S. D. A.)

East of the Mississippi River there is a well substantiated belief that as much cotton is produced by fertilizers as is produced by the natural fertility of the soil. Over large areas of the southeast the yield of cotton would be reduced more than half by leaving off fertilizers. In other regions less than half would be the reduction. But west of the Mississippi River where comparatively little fertilizers are used, the rainfall is the most dominant influence in crop returns. Fertilizers are not yet used in that region to materially influence the yield, but even there a drastic reduction in the use of fertilizers has occurred.

Good fertilization, according to tests of agricultural experiment stations of the South, gives a return of a pound or more of seed cotton for a pound of fertilizers applied. This affords some basis for estimating what may occur when the use of fertilizers on cotton has been reduced from 50 to 60 per cent.

But all the fertilization of cotton this year has not been "good fertilization." Not for a long time has there been so much inefficient fertilization of cotton as this year. This has been due to the inability of the farmer to buy the higher grade goods he has been accustomed to using. More purchasing of goods of low analysis has

occurred this season than even in 1914. All of which points with reasonable certainty to a smaller yield per acre than the reduction in fertilizer tonnage would indicate.

This apparently gloomy picture has its saving grace. It is as true of the price as it is of fertilizers, that as is the production of cotton so is inversely the price. The smaller the total crop the greater the possibility of the cotton farmer getting something for his year's work. And it might be added in this connection, the better the fertilization of a given acre the greater the profit.

It is also in order to state that the southern farmer has reacted to the adversity of the deflation period by adopting a "safety first" policy, as reflected by an increased acreage devoted to food and feed crops. The hardest pinch came to the cotton farmer who carried the heaviest food and feed account at the "country store." So hard has this type of farmer been pinched that he finds his food and feed credits at the "store" restricted to such a degree as to force him to grow food and feed. In fact, the growing of corn, sweet potatoes, sorghum, sugar cane, hay crops and small grain came to be the only means left for home supplies for many cotton growers. There is evidence also that the banks and cotton factors conditioned their advancement of loans to a greater measure than ever before upon a requirement that the cotton farmer cut down his credit demands for food and feed.

When it is considered that the greatest part of credit paper of the southern farmer is represented by food and feed purchases, it can be appreciated that there will be great relief felt with the lifting of this incubus. There will then be more money available for the use of real productive agencies such as is represented by improved machinery, fertilizers and pedigreed seed.

All told, it seems that the southern farmer is taking a short cut out of the woods. He has erred in attempting too many acres of cotton. He could have pulled himself out of his financial difficulties more easily by reducing his crop acreage more drastically and by fertilizing in a way that he knows from past experience will bring him the largest returns. But the encouraging thing is that he is pulling out.

\$303,238,000 in Fertilizer and Products in 1919.

Reports to the Census Bureau from 818 establishments on the manufacture of fertilizers and their products for the year 1919 show a total value for these products of \$303,238,000. Of these establishments, 599 were primarily engaged in the manufacture of fertilizers with products valued at \$278,610,000, and 219 establishments reported the manufacture of fertilizers to the amount of \$24,629,000 as subsidiary products. Of the 599 establishments in the industry proper the following number were located in Southern States, as indicated: 144 in Georgia, 50 in South Carolina, 45 each in Maryland and North Carolina, 44 in Virginia, 40 in Alabama, 24 in Florida, 16 in Tennessee, 9 each in Mississippi and Texas, 6 in Louisiana, 4 in Kentucky, 3 in Missouri, 2 in Arkansas, and 1 in West Virginia.

The Cotton Movement.

In his report of June 4, 1921, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during ten months of the season ending close of May, was 9,765,144 bales, a decrease from the same period last year of 2,039,122 bales. The exports were 4,514,345 bales, a decrease of 1,485,533 bales. The takings by Northern spinners were 1,511,323 bales, a decrease of 1,081,992 bales; by Southern spinners, 2,331,718 bales, a decrease of 893,914 bales.

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Cattle Raising in Southeast to Benefit by Test Pastures.

To give a practical demonstration of the value of good pastures in the development of the livestock industry of the Southeastern States the Central Railway of Georgia has established test pastures in 46 counties served by the railway; 12 of these are located in Alabama and 34 in Georgia. All of the 46 pastures should have good stands this summer of the three varieties of pasture plants to be used most extensively, namely, Japan Clover, Carpet Grass, and Dallis Grass. Small quantities of other clovers and grasses are used on some of the North Georgia pastures.

The announcement of the railway last September that it desired to co-operate with the farmers in each of the counties traversed by the road, met with a prompt response. In some cases the farmers offered land as pasture sites which had been producing crops for years. This land was not accepted, as it was not considered desirable to have such a sacrifice made, it being the aim to select existing pastures only, or waste land.

Large supplies of seed were contracted for, and this seed has been distributed at contract prices and in small quantities to the pasture owners and others in the territory. Moreover, the efforts to make better pastures are not confined to the land of the test pastures; many other farmers are trying some of the three chief varieties of seed on their own account, following the methods recommended for the pastures that are being used for the test. It is felt that the efforts of the railway will show conclusively that the Southeastern States are well adapted to stock raising, and that this section will some day be able to compete with other parts of the United States in the cattle raising industry.

Shipping American Cotton to India.

Galveston, Texas, June 14—[Special.]—Shipping Texas cotton to India is a new development in international trade. Recently 3,000 bales were shipped from Galveston to Bombay, and it is stated that bookings for several thousand additional bales have been made. According to brokers and steamship men the present movement of cotton to India is preparatory to the taking of full cargoes of the staple out of Galveston, destined to Bombay and Calcutta. In explanation of the opening of a market in India for Texas cotton, it is stated that while India is a producer of cotton, the product is of short, coarse staple and the crop, reported to have been 4,676,000 bales in 1919, is mostly very low grade. This is borne out by the fact that there is no competition in the British and other European markets between middling American cotton and the India product.

The spinners in India, it is stated, are mixing the good grades of American cotton with the best of the native production in an effort to turn out better yarns, and having found the method practicable are buying their cotton directly at the source of production rather than through the British dealers.

A Striking Example of the Value of Farm Demonstration Work.

Ocean Springs, Miss., June 7—[Special.]—An illustration of what organized effort by farmers, aided by an energetic farm demonstration agent can accomplish, was given this year when a "radish club" was organized in this county (Jackson), and 18 acres of land long considered unfit for trucking purposes, planted in radishes with a return of \$266 an acre.

The radishes were shipped five weeks from the day they were planted. The total crop was six cars.

The net profit this year was smaller than it will be

when the farmers are better organized, thinks J. W. Tate, county agent. The cost of producing, including fertilizer, was only \$50 an acre, but the cost of harvesting and shipping was greater than it should be and higher than it will be next year. With this object lesson, Mr. Tate is working to enthuse the county to greater agricultural application.

This is the coast section of Mississippi. It has been considered a non-agricultural section; and if Mr. Tate proves it isn't the land that is at fault, but the methods, he will be adding tremendously to the wealth production.

Canning club work in the county too, is having a great success. One girl, Eva Fleury of Vicksburg, packed 1,160 containers, won third prize in the State, and made a net profit of \$304.57.

In poultry club work, this same girl showed how with application, chickens can be made to pay as well in Mississippi, as, for instance, in Oklahoma, where the poultry crop sideline yielded almost as much revenue as the total cotton crop of Mississippi. By following closely the directions of the home demonstration agent, this little girl made the following record for the year:

Money spent for food.....	\$ 55.70
Value of stock on hand, January 1, 1920.....	73.00
Value of poultry houses, fences, etc., January 1, 1920.....	50.00
.....	
Value, stock on hand, October 31.....	\$178.76
Value of new equipment.....	\$246.00
Cash on hand, October 31.....	150.00
Fertilizer collected.....	49.35
.....	50
Net profit.....	\$45.85
	\$267.15

Mississippi Dairy Industry Reaching Out.

New Orleans, La., June 11—[Special.]—With a total production of 5,000,000 pounds of butter a year, and facilities for rapidly increasing this output, Mississippi is planning a trade offensive to extend the sale of its butter in Southern States. The development of the dairy industry of Mississippi within the past ten years from practically an unknown quantity to this large production, is considered one of the most remarkable indications of progress in the South.

There are 30 creameries in the state. Besides butter, they are shipping about 2,000 gallons of milk a day to New Orleans, not to mention the other markets.

A committee representing the creameries recently visited New Orleans with a view to starting the big trade offensive in this territory.

Eighty-five per cent of the butter used in New Orleans comes from northern sources.

The committee stated that a huge advertising campaign would be launched, and that a co-operative marketing organization would be established in New Orleans to put Mississippi butter on the market.

Furthermore, the Mississippi product will be standardized.

The committee coming to New Orleans comprised: Professor T. S. Moore, of the Mississippi A. and M. College creamery; T. E. Bourgeois, of the Canton creamery; F. F. Becker, of Brookhaven; T. M. Patterson, state marketing agent; T. S. Edwards, dairy manufacturing specialist of the U. S. Department of Agriculture, and L. M. Davis, of the Bureau of Markets of Washington.

Chattanooga Building Shows Big Increase.

Chattanooga, Tenn., June 11—[Special.]—Building permits issued here during May, show an increase of about 164 per cent over the total valuation for the same month last year. Permits for new work and repairs amounted to \$262,376 and numbered 234 compared with 176 last year.

1920 State Production Most Valuable in History.

Washington, June 10—[Special.]—The value of the slate sold by quarrymen in 1920, according to figures compiled by A. T. Coons, of the United States Geological Survey, was \$8,726,442, the largest value yet recorded for this material. This value, however, does not indicate any decided revival in the slate industry as a whole, for the quantity of roofing slate sold (396,230 squares) was only 8 per cent more than in 1879, the year of the lowest recorded sales (367,857 squares) and more than 72 per cent less than in 1902, the year of the largest recorded sales (1,425,168 squares). The average value per square, however, was \$3.35 in 1879, \$3.45 in 1902, and \$8.90 in 1920.

The total quantity of mill stock sold in 1920 was approximately 9,910,000 square feet, an increase of 33 per cent over the quantity sold in 1919, but 24 per cent less than that sold in 1913, the record year. The total value of the mill stock sold was \$3,147,281, a gain of 77 per cent over the value of that sold in 1919.

The slate sold in 1920 was all produced at well-established quarries in Maine, Maryland, New York, Pennsylvania, Vermont, and Virginia.

Nearly all the producers reported that the demand for roofing slate was poor or fair, especially during the last three months of the year, and that the outlook for 1921 is not very promising.

The demand for mill stock was extremely good, and many orders could not be filled on account of labor and railroad conditions.

The Prepared Roofing Association, through its secretary, has informed the Survey that in 1920 approximately 375,000 tons of slate or stone granules were used in the manufacture of grit surface roofing and asphalt shingles. Up to 1920 the granules used were obtained chiefly from the red and green slates of New York and Vermont. According to reports, a large plant has been erected in Rutland county, Vt., for quarrying and pulverizing purple slate to be used in the manufacture of a plastic composition to take the place of small sizes of natural slate used in the electrical industry. Besides other development work in the localities mentioned preparations for the erection of mills to produce slate and manufacture granules in 1921 have been reported at Jemison, Chilton county Ala., (purple and green slate); Fairmont, Bartow county, Ga., (green slate); Cardiff, Harford county, Md., ("black" slate); Tellico, Monroe county, Tenn., (green slate); and Esmont, Albemarle county, Va. ("black" slate).

Stone granules other than slate were obtained for use as roofing surfacer from deposits at Front Royal, Warren county, Va.

The exports of roofing slate in 1920 were valued at \$49,621, and the imports, classed as slate chimney pieces, mantels, slabs, etc., were valued at \$4,512.

Boys' Clubs Show Rapid Growth.

Jackson, Miss., June 10—[Special.]—The rapid spread of boys clubs throughout South Mississippi is evidenced by statistics made public by F. R. Hurst, assistant district agent in charge of club work in that section of the commonwealth, which show that up to May 1 of the current year, 3,171 boys have been enrolled in ninety-five community clubs, whereas only 2,570 enrollments were recorded for the entire year of 1920.

Various industries are taken up in this club work, namely, corn, pig, cotton, dairy, sweet potato, baby beef, fruit and peanut. Monthly meetings are held and a club boys' camp has been arranged for Copiah and Lincoln counties for August 25.

Cotton Linters Valuable in Paper Making.

Dallas, Tex., June 11—[Special.]—An exhaustive study of the value of cotton linters in the manufacture of paper has recently been made public here by the Forest Products Laboratory of the United States Department of Agriculture. The report concludes that pulp made from cotton linters and shavings is well suited for the manufacture of book, writing, blotting and other high grades of paper, and it is at least the equal of the best grades of wood pulp used for this purpose. Further, it is stated that if the paper industry will avail itself of this new source of raw material, there is every indication that a large tonnage can be produced, and at a price sufficiently low to compete with wood pulp.

The Government experimenters state also that only one-half of the quantity of chemicals is required to reduce second cut cotton linters and shavings to a pulp, as is necessary for the reduction of wood by the alkaline process.

The opinion is expressed by some of the larger and older paper manufacturing concerns of the country that even when cotton linters are priced at a considerably higher figure than they are today, paper can be manufactured from that material and still compete with the wood-pulp product. Other concerns say that a rise in the price of cotton linters will make their use for paper making impracticable.

Cotton linters were used prior to the war as a stuffing for upholstery, mattresses, horse collars, cushions, etc., as well as for the manufacture of smokeless powder, pyroxylin, varnishes and plastics. During the war cotton linter consumption was largely diverted to Government use to meet the big demand for this material for the manufacture of nitrocellulose. Indeed, the Government appealed to cottonseed-oil mills to increase their supply of linters by closer cutting of the seed. Previously only 50 or 55 pounds of linters had been obtained from a ton of seed, but during the war many mills installed machinery which would take as much as 180 pounds of linters from a ton of cottonseed.

Speeding up Delivery of Small Lot Freight by the Container-Car System.

As a means of expediting delivery of less than carload volumes of freight from shipper to consignee, store door delivery by means of the container-car system has been tried out by the New York Central Railroad between New York, Cleveland and Chicago. The use of the system calls for co-ordination of steam railroads, motor trucks and electric railways.

Vault-like compartments, built to occupy one-third or one-sixth the floor space of a 50-foot freight container car, or one-ninth the floor space of a 66-foot express car, are loaded at the warehouses of shippers, transported by motor trucks to the railroad yard, there lifted by crane to the freight or express car and secured by hooks and steel guides for the next stage of the journey.

Arrived at their destination, the compartments are again lifted by crane to motor trucks, rushed to the doors of consignees, unloaded and then returned to the railroad cars either light or re-loaded.

Container cars are of two types, one designed to carry express and the other freight. Each of the nine compartments of the express type car has a capacity for three tons. The freight train type of car carries compartments of two sizes and can accommodate two large and two small, one large and four small, or six small removable sections. The capacity of the small size section is 3500 pounds of the large section 7000 pounds.

The steel compartments, besides being fireproof and weather tight, are made burglar proof by setting them onto the cars in such a manner that the doors, even if they could be unlocked, could not be opened without hoisting the whole compartment above the steel bulkhead behind which it fits.

For the express type of car, one of the fields of potential usefulness is the United States Mail service.

Recent Developments in the Manufacture of Sulphuric Acid.

Mr. Andrew M. Fairlie of Atlanta, Ga., before the Franklin Institute, Philadelphia, Pa., on March 16, read a paper on the above subject. Lantern slides were used and were of material aid in presenting the details of the various new plant equipment. Without illustrations, the following brief abstract or summary of the paper shows the points presented by Mr. Fairlie. The recent development of processes which use no chambers, but still use oxides of nitrogen, has upset the former classification of chamber process and catalytic processes. It is now proposed that these new processes shall be grouped with the chamber process under the general head "nitration processes," leaving the catalytic processes, as they were, in a group by themselves.

During the war, restrictions on importations of Spanish pyrites greatly stimulated the demand for sulphur, for making sulphuric acid, and the percentage of American acid made from brimstone, based on the total acid production of the United States, rose from 2.6 per cent in 1914, to 48 per cent in 1918. More than one-half of the sulphur mined in this country is used for the manufacture of sulphuric acid.

Flue-dust does not concern the acid-maker who burns brimstone. But it is a serious hindrance to those who burn pyrites, or who make acid as a by-product from smelting operations. Within recent years, the Research Corporation, which controls the Cottrell electrical precipitation methods throughout most of the United States, has been engaged in developing methods for the precipitation of dust from the hot gases of an acid plant using pyrites gases. Illustrations of the apparatus used were shown, and statistics were given showing that 98.94 per cent of the dust (solid particles) could be precipitated from hot gases. Fume, however, such a volatilized arsenic or lead, escapes precipitation to a large extent.

Prior to admitting the hot sulphur gases into the Glover tower, it is usual to introduce, and mix with them, oxides of nitrogen distilled from heated niter pots containing a mixture of nitrate of soda and sulphuric acid. At several acid plants in England, and at one plant, at least, in the United States, these oxides of nitrogen have been obtained by a process which was developed during the war for war purposes, namely, by burning ammonia gas by passing it through platinum gauze heated to redness.

A new type of acid chamber, which has made considerable headway in England, France and Italy, but which has remained thus far untried in the United States, was described at length. This is the Mills-Packard water-cooled acid chamber, an English invention, and patented in this country also. This chamber is built in the shape of a truncated cone, adapted for the evenly-distributed flow of water down the outside. Each chamber is provided with a series of troughs, one above the other, "burned" to the outside of the chamber wall, and all encircling the chamber to redistribute the water frequently and keep as much of the chamber walls wet as possible. Drawings and a photograph of these chambers were thrown on the screen, and statistics were given showing their efficiency in operation. A usual size is 20 feet in diameter at the base, 10 feet in diameter at the top, and 40 feet high. More than 100 of these chambers have been built for 27 firms in four European countries.

Various types of spray nozzles for atomizing water inside the acid chambers, packing blocks for chemical towers, acid pumps, acid valves, and gas fans were described and illustrated on the screen.

Two nitration processes without lead chambers were described. One of these was the Kaltenbach pipe process, in which the gas, after passing through the usual Glover tower, passes up a number of water-jacketed pipes which are filled inside with a suitable packing material; and in these pipes the ascending gases come into direct contact with descending acid, admitted as a spray at the tops of the pipes, and cooled prior to admission. After passing through one group or more of these water-jacketed pipes, the gases are passed through a Gay-Lussac tower, which may itself, if desired, be a group of water-jacketed and packed pipes for the recovery of oxides of nitrogen. A diagrammatic view of a pipe process plant was shown.

The other chamberless nitration process discussed was the Ana-

cond: packed-cell process, the plant for which is called the packed-cell plant. Such a plant has the conventional Glover and Gay-Lussac towers, but in lieu of lead chambers there is a series of towers or "cells" built of acid-proof masonry in one block, and the gases traverse these cells, going alternately downward, then upward, in their progress through the series. Each cell of the series is fed at the top with a spray of acid, of the strength that is usually made in lead chambers, and previously brought to a pre-determined desirable temperature. The last cell of the series is always fed with cooled acid. After leaving the last cell, the gases pass into the usual Gay-Lussac tower for the recovery of oxides of nitrogen. The plant described had a capacity of 25 tons of acid per day, and was first operated in May, 1919. A 250-ton plant, for the same process, has been completely designed by the Anaconda Copper Mining Co., but construction work has not yet started.

A porous solid, Patrick's silica gel, having the property of absorbing unusual quantities of gases, such as sulphur dioxide, was discussed. The gel consists of small, hard, white pellets. It is manufactured by Davison Chemical Co., Baltimore, Md., who control the patents covering the process of manufacture and methods of using the gel for adsorbing gases. A variety of ways in which silica gel may, perhaps, be used advantageously in the sulphuric acid industry were mentioned. The work is still in the experimental stage, and it is not possible to predict how extensively this curious material will be used.

75,000 Barrel Oil Well Brought In.

Tampico, Mexico, June 6—[Special.]—An oil well with a daily flow of 75,000 to 100,000 barrels has been brought in by the Mexican Petroleum Company, through its subsidiary, the Huasteca Petroleum Co., in the coastal region south of Tampico, and in what was former wild cat territory 25 miles south of Cerro Azul. The location is on the Tierra Blanca lease of 30,000 acres, which E. L. Doheny, head of the Mexican Petroleum Co., secured 21 years ago. The Huasteca Petroleum Company has two more wells drilling and three locations upon the Tierra Blanca lease. William Green, vice-president and general superintendent of the Huasteca Petroleum Company, in describing the big well says: "It came in at a depth of 2,140 feet. First came the drilling water, then the oil. The tools were pulled out with the bull wheel, and the well settled down to a production of about 15,000 barrels. It was then shut in and the pressure came up to 500 pounds. After a rest of 15 minutes, it was opened up fast and blew the head off. It again settled back to about 15,000 barrels production." Final reports submitted to Mr. Doheny estimated the well at 75,000 barrels of oil daily.

Increasing Petroleum Imports from Mexico.

The value of the petroleum imported into the United States in the current calendar year, says a statement of the National City Bank of New York, will be nearly \$100,000,000, the figures for the fiscal year approximating \$80,000,000 as against \$41,000,000 in the fiscal year 1920, \$29,000,000 in 1919, and \$22,000,000 in 1918. The total quantity will be nearly 6,000,000,000 gallons against about 3,000,000,000 in 1920, approximately 2,000,000,000 in 1919, 1 1/2 billion in 1918, and 1,000,000,000 in 1917.

The total quantity of refined petroleum in all forms imported has grown from 47,000,000 gallons in 1919 to 82,000,000 in 1920, and will approximate 125,000,000 gallons in the fiscal year which ends with this month, most of this importation coming from Mexico. Practically all of the oil from Mexico comes by tank steamer, about one-third of the crude petroleum entering at the Gulf ports of Galveston, Sabine, and New Orleans, while most of the remaining two-thirds passes through the Gulf northward to Baltimore, Philadelphia and New York.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

A Vigorous Criticism of the American Federation of Labor.

James C. Fisher, Reedville, Va.

I believe the great majority of the members of the American Federation of Labor, especially the leaders, are traitors at heart to this Government; and indeed, to all organized governments. And the small percentage of American patriots within its ranks are entirely in the breasts of its American members who never hold any office of authority in the organization; but allow themselves to be led by the radical leaders. If Gompers had any American patriotism about him why did he sanction the thousands of industrial strikes during the war when the true American boys were in the trenches in France to be shot at and gassed by the undescribable Germans at one dollar per day; for sometimes all day and all night? And Gompers' cohorts of so-called patriotism here at home striking in munition plants and other army supply plants, for \$1.00 and more per hour for eight hours of inefficient work, and sometimes for double pay for overtime. And all this with the sanction of Gompers. I have always claimed since 1917 that Gompers and the great majority of the American Federation of Labor are arch traitors to this Government. Over three-fifths of the members are not even citizens of the United States and a large percentage of the other two-fifths are foreign born. Gompers himself is an alien. An Austrian Jew, if I am not mistaken. History does not record such a national crime against an organized government as was staged and carried through by the so-called patriotic leaders of the American Federation of Labor in holding up the President and Congress of the United States in 1916, and then to think! O God! it makes my heart ache with shame to have to record! That the President signed those hold-up traitorous bills with a separate gold pen! and handed one each to the arch traitors that staged this hold-up "as a souvenir." In my opinion they should be in the national pen, where Debs is. And the only reason I think they are not is because they are slicker of tongue and more cowardly in expressing their sentiments than Debs is. Well may Gompers say that he does not think it policy to form a labor party; for he wants to be free, to support either party that is the most favorable to labor. That is not the reason, in my opinion. But he knows that fully three-fifths of the labor organization are not even citizens of the United States and cannot vote. And they will not become citizens either, so they will not be subject to military service. Gompers advised his cohorts to support the Democratic ticket last fall. Fine showing! eh?

The Knights of Labor was the first great labor organization, and Terrence V. Powderly the head; as Gompers is now the American Federation of Labor. I was a carpenter at the time, in Philadelphia, and then as now walking delegates were prevalent. And as now! their faces showed hatred, insubordination and radicalism. No other sort of man will have such a job. An American came on the job I was on; and we became quite friendly. One day a walking delegate came spying around, etc., and after he was gone the conversation began on unionism. And this American told me he had joined the union as he believed it the best interest of the laboring man, etc., according to the public teaching of unionism

and took an active stand for the union, worked for and made speeches, etc., for the union and advanced in the order, so that he was appointed a delegate to a secret meeting in which Powderly was to speak on the private aims of the Knights of Labor. And this was the key note of his subject. "Ye are the bone and sinew of the nation; yea! of the nations! And ye should be the rulers! and it rests within your own power to be the rulers. The Knights of Labor should gather within its ranks all of the industrial workers of the world! Yea! Gentlemen of the world! and be under one central head or leader and you could dominate the civilized world in all its business branches. And get whatever you want or paralyze the business of the world in getting it. Stop railroads, general transportation! Yea! even the mails, etc. etc."

Of course, Powderly expected to be that central head or leader. This man said he saw then that if the secret aims of the Knights of Labor was carried out there would be the ruination of organized governments and all prosperity. And he then and there resigned and left the union and would never have any more to do with it. Now, this secret move that Judge Gary speaks about their getting control of the public press, etc., etc., is in direct line with Powderly's secret speech. I said then, when this man told me of Powderly's speech that the only way out that I could see was for them to get fighting among themselves and go to pieces, which they did, in a year or two after this. And then the American Federation of Labor was organized; and now their real aims are in the same direction of the Knights of Labor. And it is up to the public to join hands and forces and stand for the open-shop. But if the public does not do this, they will go on with their destructive methods until they go to pieces fighting among themselves. But there will be great havoc with business before that time arrives. And the public can make a very much shorter cut to that end; with very, very much less damage to business if they will only half stand together as the unions do.

* Mr. Gompers was born in England.

Transmutation of Metals Theory Worthy of Investigation.

According to Dr. Ira Remsen, Emeritus professor of chemistry at Johns Hopkins University, the theory of the alchemists that base metals may be transformed into gold is still an open question. In an address in Baltimore on May 27 before the Maryland Section of the American Chemical Society, Dr. Remsen discussed the research work of Sir William Ramsay and his discovery that the emanation from radium gives helium. This is an illustration of transmutation of metals. In summing up the whole question of the change of one element into another, Dr. Remsen said: "Whether it will ever be possible to transform silver or any other metals into gold, no one can say. In any case, the subject is well worth investigating, and it is obvious that we shall never know the outcome without a great deal of careful research."

R. E. Hightower, president of the Thomaston Cotton Mills, Thomaston, Ga., advises the Manufacturers Record that the company will erect a power plant to develop electricity for use in the mills.

THE IRON AND STEEL SITUATION

Pittsburgh Looks to the Future.

Pittsburgh, Pa., June 13—[Special.]—The big volume of bad news that has come out in the past few months in the iron and steel industry, as to continual dwindling in production and greater and greater stagnation in the market, has not served to depress the spirits of the trade. It is a matter of general comment how cheerful the trade is these days in view of its concern not only with its own high production costs, but also with the high costs of its customers, in consuming steel. The various things made from steel have been costing the ultimate user too much money, partly because the original cost of the steel was too high, but very largely because the cost of converting it into the finished wares was too high.

The worse conditions grow now, as to smallness of steel production and lightness of buying of steel, the more convinced the steel industry is that a revival will be forced at an early date.

Production of steel is now at a rate slightly under 25 per cent of the productive capacity, against rate of slightly under 30 per cent in May and between 30 and 31 per cent in April. The 25 per cent rate breaks all records in the steel industry for lightness of operation. Before the war it was generally held that steel production could not go below 50 per cent of capacity, and the history of the industry is that it never did. Even in point of tonnage the output is low, the percentage being particularly low because capacity has increased. Steel ingots are now being produced at about 10,000,000 tons a year, and one has to go back to 1900, the year before the Steel Corporation was formed, to find as light production.

For several weeks past it has been the belief of the great majority of steel buyers that prices would be lower in the not distant future, say by August, and the producers while not admitting such a belief on their part have made no particular effort to argue against it. It is now stated on good authority that the Steel Corporation has decided that in present circumstances it will meet independent cutting as it develops, not matching every cut price that comes out, but meeting any cutting that is general. There is no official admission that such a policy has been adopted, nor would an official statement be expected in such circumstances. What appears to be a carrying out of the policy is found in the case of wire products, since more than a week ago the wire subsidiary of the corporation has been making sales of nails at \$3, meeting prices quoted for a short time by several of the independents, when the former price was \$3.25. It is reported, but not fully confirmed, that declines have also occurred in some other wire products.

In bars, shapes, plates and some other commodities it is said that price cutting is not extensive chiefly because there is so little business going of a size that would induce price cutting, the typical order being for a single carload.

Demand for tubular goods, which for some time past has been markedly in excess of demand for other steel mill products, has declined sharply and hardly makes a favorable comparison any longer.

Liquidation in stocks of pig iron is proceeding rather slowly, but it is making progress every day, for production is very light. Consumption is partly from stocks held by consumers and partly by shipments from furnace stocks. The course of pig iron prices shows that the market is scraping bottom, for declines in quoted prices are now infrequent and are small in amount. Basic iron, for instance, is quotable now at \$21.50, valley, against \$21.75 a week ago. This is the first time in years that basic iron has changed in quotation by a paltry 25 cents. Early in

the recent decline it went off by more than a dollar a ton between sales.

Connellsville coke remains quotable at \$3.25 to \$3.50 for furnace and at \$4.75 to \$5.25 for foundry, for spot or prompt shipment. On an order for one to three month's delivery of a round tonnage \$3.00 might possibly be done on furnace coke.

No Material Change at Birmingham.

Birmingham, Ala., June 13—[Special.]—Production of pig iron in Alabama, so far as the open market is concerned, will not be increased for some time, not unless there is a decided improvement in the market conditions and that is not in immediate sight. For several weeks the greater portion of the orders coming in has been in one or two-car lots. Pipe concerns bought occasionally in larger quantities, 500 or 800 tons at a time, but these are exceptions. There has been a steady adding to the surplus iron, that is iron on furnace yards, though two companies have been selling from off the yards with no blast furnaces going, one company announcing that it has been selling its make right along, with one blast furnace in operation. Two independent companies have been piling iron on the yards, offsetting the differences above mentioned. Since the middle of May the base price has been around \$22.50 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. Reports have been current that some of the more active customers lately have been accommodated at a dollar less and while there is general denial the statement has been made that a \$20 market is sought by consumers. Smaller industries in the Birmingham are beginning to show signs of renewed life and there is a better melt this week. Cast iron pipe interests are getting in some little business but are able to fill orders with partial operations. Sanitary pipe people, also the cast iron pipe or high pressure pipe folk have been giving concessions thus stimulating some activity in their product but warehouses are to be resorted to extensively before there will be any definite steps taken to increase output. Building operations are taking on improvement and in the fall some big structures will be under way but the sanitary pipe and fittings manufacturers are still looking for business. Sailings of boats from Mobile for California ports are affording some opportunity for cast iron pipe movements and this month a few thousand tons of the Birmingham-made high pressure pipe will be shipped to that territory. Among other smaller industries consuming pig iron are the stove foundries. Resumption at one of the larger of these plants while quite significant did not start a general movement in that direction.

Steel mill operations are showing a little more optimism. In some of the plants departments are being started up and others working to a greater output. The car works will be requiring a steady supply of steel as the new operations are being pushed; while it was mentioned that there were 900 cars to be built, 300 for the Birmingham Southern, the railway division of the Tennessee Coal, Iron & Railroad Company and 600 for the Louisville & Nashville Railroad, it is now understood there are other orders either ready to be started on or being held so that the new department of the Chickasaw Shipbuilding & Car Company will have an auspicious beginning. A small tonnage of steel has been worked up for this plant. The little plant of the Cadenhead Auto Rim Co., Inc., which includes a 10-inch steel guide mill, will be ready to start operations about July 1. This concern will get its supply of steel from the Tennessee Company.

The coal market in Alabama shows brighter prospects

this week. Operators are still expecting orders for domestic coal. Many of the railroads have renewed their contracts. Some of the labor which was on strike is leaving the district. The coal operators have asserted that just as quickly as conditions warrant there will be resumption of operations at mines but there is more or less of a debt owing the loyal labor. Opinion prevails there will be steady activity after July 1.

The coke market shows no improvement this week. Some of the smaller companies still report receiving orders daily for car lots of coke and the aggregate equal to their make. The Alabama Company, for instance, reports some few sales of beehive coke. The general coke market is very quiet. Quotations are still on the \$7 base for foundry coke and \$6 and less for the furnace product. In all instances the car lot sales of coke stipulate immediate delivery and this is being accomplished.

The scrap iron and steel trade is negligible. All yards of dealers are well stocked and not the slightest difficulty is experienced in getting service from the railways when needed. Consumers of old material are making offers as to what they are willing to pay for such stock as they might want. Quotations follow:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$22.50 to \$23.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$23.25 to \$23.75; iron of 2.75 to 3.25 per cent silicon, \$24.00 to \$24.50; iron of 3.25 to 3.75 per cent silicon, \$24.75 to \$25.25; iron of 3.75 to 4.25 per cent silicon, \$25.50 to \$26.00; charcoal iron, f. o. b. furnaces, \$35.00.

OLD MATERIAL.

Old steel axles.....	\$15.00 to \$16.00
Old iron axles.....	21.50 to 23.00
Old steel rails.....	12.00 to 14.00
Heavy melting steel.....	11.50 to 12.50
No. 1 R. R. wrought.....	11.50 to 12.50
No. 1 cast.....	11.50 to 12.50
Stove plate.....	11.50 to 13.00
Old car wheels.....	11.50 to 13.00
Old tramcar wheels.....	11.50 to 12.50
Machine shop turnings.....	5.00 to 6.00
Cast iron borings.....	5.00 to 6.00

Steel Ingot Production by Months.

Following is the monthly production of steel ingots from January, 1920, to May, 1921, as reported to the American Iron and Steel Institute by 30 companies which made 84.20 per cent of the steel ingot production in 1920:

Months.	Open Hearth.	Bessemer.	All other.	Total.
1920.				
January	2,242,758	714,657	10,687	2,968,102
February	2,152,106	700,151	12,867	2,865,124
March	2,487,245	795,164	16,640	3,299,049
April	2,056,326	568,952	13,017	2,638,305
May	2,251,544	615,932	15,688	2,883,164
June	2,287,273	675,954	17,463	2,980,690
July	2,135,632	652,888	13,297	2,802,818
August	2,299,645	695,003	5,784	3,000,432
September	2,390,417	693,586	5,548	2,999,551
October	2,335,863	676,634	5,485	3,015,982
November	1,961,861	673,215	3,594	2,638,670
December	1,687,162	649,617	3,586	2,340,365
Total.....	26,197,843	8,112,753	121,656	34,432,252
1921.				
January	1,591,281	608,276	3,629	2,203,186
February	1,295,863	450,818	2,796	1,749,477
March	1,175,591	392,983	2,494	1,570,978
April	1,000,053	211,755	2,150	1,213,958
May	1,047,810	216,497	1,513	1,265,850

Railroad Financing Approved.

The Interstate Commerce Commission has approved the Southern Railway's application for permission to pledge \$7,229,000 of 4 per cent development and general mortgage bonds as security for notes issued to meet current needs. It is also announced that the company has withdrawn its application for a Government loan of \$3,825,000.

The Norfolk & Western Railway was authorized by the Commission to sell at not less than par and interest \$269,000 of 4 per cent, convertible 10-20 year bonds; \$1,213,000 of 4 1/2 per cent convertible 10-25 year bonds and \$522,000 of 6 per cent convertible 10-year bonds.

RAILROADS

Street Railway Compelled to Cease.

Wheeling, W. Va., June 7—[Special.]—Its revenues so depleted, that operating expenses cannot be met, it is highly probable that the City Railways Company of this city will abandon the operation of its trolley cars here. Frequent meetings have been held lately by stockholders and directors trying to work out a plan to continue operation, but after thoroughly considering the financial status of the company and general conditions under which the road is operated it has been decided to apply to the circuit court for an order of adjudication such as will be for the best interests of all those interested in the property. In short the court will be asked to revoke the charter of the company and to permit it to wind up its affairs. Not only has it been found impossible to operate at a profit but it has been found impossible even to pay running expenses. Factors entering into the inability of the concern to continue in business were 'bus competition, growing expenses and other conditions.

A Unique Line to Be Rebuilt.

The Rio Grande Railroad, from Brownsville to Point Isabel, Tex., will be rebuilt immediately, according to a report from Brownsville, which also says that \$191,000 of bonds for the purpose have been sold to residents of the lower valley of the Rio Grande. This line, which is a narrow gauge road of 3 ft. 6 in. was chartered in the summer of 1870 and was opened for business two years later. It was built by a party of Spaniards and the equipment was of the foreign type. The idea is to convert the track to standard gauge and to improve it. One train daily is operated each way for passengers, the schedule time for the run of 22 1/2 miles being 1 3/4 hours. D. A. O'Brien is president and general manager; James A. Browne, vice-president, and J. O'Brien, secretary.

Oil Region Railroad Proposed.

A report from Shreveport, Louisiana, says it is proposed to build a railroad to connect that city directly with additional oil producing regions in the northern part of Louisiana and the southern part of Arkansas, the line to run from Shreveport to Minden, Homer, Haynesville and Eldorado if the plan is fulfilled. A meeting of representatives of several communities along the route has been held at Shreveport and it is estimated that the cost of constructing the 70-mile road would be about \$2,000,000.

Would Extend Railroad to Develop Coal.

The Chamber of Commerce at Appalachia, Virginia, is taking steps to induce the Southern Railway Co. to build an extension into Harlan county, Kentucky, to develop extensive coal fields. Appalachia is on the Southern's line from Bristol to St. Charles, Va., and about 70 miles from Bristol. Heavy construction would be necessary to extend into Kentucky, but the idea back of the suggestion is that the Southern Railway could reap great advantages by building the extension proposed into that great coal field.

Railroad to Be Scrapped.

The Liberty-White Railroad, 24 miles long from McComb City to Liberty, Miss., has been placed in a receivership, according to a report from Magnolia, Miss., which also says that Kenneth G. Price, of McComb, has been made receiver with orders to discontinue operation of the line and to sell the equipment, rails, etc., for the benefit of creditors.

GOOD ROADS AND STREETS

22,030 Miles of Federal Aid Highways Costing Over \$360,000,000.

According to a statement of the chief of the Bureau of Public Roads, Washington, there had been completed or were under construction on March 1 of this year, 22,030 miles of Federal aid highways, extending into every State, at a total cost of \$361,946,868. This is the record of work accomplished since July, 1916, when the Government began to aid in the building of highways. More than two-thirds are earth, sand clay or gravel roads, these costing less than one-third of the total amount expended as compared with nearly 50 per cent of the estimated cost applied to 4,890 miles of hard-surfaced roads.

The percentage of the total estimated cost to be incurred and the mileage of each type, is as follows: Type 1, including earth, sand, clay and gravel, 32.2 per cent, mileage 15,300; type 2, including water-bound and bituminous macadam, 9 per cent, mileage 1,530; type 3, including brick, bituminous concrete and Portland cement concrete, 48.8 per cent, mileage 4,890; miscellaneous, 4 per cent, mileage 310. Bridge construction is estimated at 6 per cent of the total expenditure.

Before a road project may receive Federal aid, a study of local conditions by an engineer of the bureau is necessary, the type of road and the most suitable surface with respect to traffic must be determined and a careful analysis made of the engineering and economic conditions. Federal aid is allotted to the improvement of earth roads, but only with the stipulation that a suitable surfacing be placed as soon as funds are available.

Notes on Good Roads Construction.

Four contracts have been awarded recently by the Tennessee State Highway Department for road construction costing \$642,122.40, in addition to contracts for a number of bridges. The awards are as follows:

A. F. Bearden, Sparta, Tenn., at \$137,767.48, 9.91 miles water-bound macadam surface in Johnson and Sullivan counties; Johnson Lumber Co., Anniston, Ala., at \$8,560 for 20-foot bridge.

Dunn & Woodall, Atlanta, Ga., at \$87,821.34, 9.94 miles chert surfacing including bridges over 20-foot span.

Rhodes & Eller, Nashville, Tenn., at \$288,513.40, 8.28 miles road, concrete base and 2 1/2-inch penetration surface; R. L. Bartholemew, Memphis, Tenn., at \$21,407.83 for bridges over 20-foot span.

Foster & Creighton Co., Nashville, Tenn., at \$128,020.18, 9.94 miles, stone base with asphalt surface.

The Bowie County Commissioners' Court, Boston, Tex., has awarded a contract at \$210,000 to Smith Bros. of Crockett, Tex., to construct an 18-mile highway from Red Water to Sulphur River, forming part of Texas State Highway No. 1.

Approximately \$300,000 is available for the construction of highways in Grenada county, Mississippi. Gravel or hard surfacing is being considered.

A. C. Tingley of St. Joseph, Mo., has been awarded contract at \$101,163 by the State Highway Board to construct 6.26 miles of gravel road in Gentry county.

Thomas C. Davis, assistant county engineer, Cleburne, Tex., is preparing plans for 14.94 miles of State highway in Johnson county. Gravel will be used for surfacing. The estimated cost is \$287,200.

Plans are being prepared and estimate submitted to State Highway Department for the construction of 12 miles of 15-foot gravel road on Middlebuster Highway No. 29 in Gonzales county, Tex. The cost is estimated at \$163,188.

Extensive Road Building Program Involving \$1,000,000.

More than 100 miles of roadway will be constructed or improved in Fulton county, Georgia, during 1921 at a cost of approximately \$1,000,000, the paving to be of asphalt or concrete. The paving of Spring street, Atlanta, and the resurfacing of Roswell road are now in progress. The latter is being paved with asphalt, penetration method, and the section from Buckhead to the river bridge will be completed this year at a cost of \$250,000.

In addition to the roadways, 11 bridges will be built at a cost of \$150,000, all of these to be of concrete with one exception. Four bridges have already been completed.

Constructing 50 Miles of Reinforced Concrete Highways at a Cost of \$2,000,000.

Construction is progressing upon approximately 50 miles of reinforced concrete highways in Wichita county, Texas, for which a \$2,000,000 bond issue was authorized two years ago. Potts & Prentice of Waco are the contractors. A temporary narrow gauge railroad is used in transporting materials, and machinery is used in laying and smoothing the paving. The concrete is strengthened by mesh reinforcement. Work was begun in October, 1920, and is proceeding at the rate of 1 mile a week. From 12 to 15 miles have been completed.

To Expend \$200,000 for Highway Construction.

Ten miles of highways in Etowah county, Alabama, will be graded, drained and surfaced, a fund of \$200,000 being available. The type of construction will be water-bound macadam base with penetration surface and the work will be done by county forces under the supervision of an engineer from the State Highway Department. S. J. Cumming of Gadsden is the county engineer.

Winnsboro Mills' Addition Nearing Completion.

The large addition being erected by the Winnsboro Mills, Winnsboro, S. C., is nearing completion, construction having begun in December, 1920. The new building is of reinforced concrete, 3 stories and basement, 116 x 709 feet, containing 296,000 square feet of floor space. The combined equipment of both the old mill and the new addition includes 78,000 spindles for the production exclusively of tire fabrics.

The building contractor was the Southern Ferro-Concrete Co. of Atlanta, and the machinery contracts were awarded to the Saco-Lowell Shops of Lowell, Mass., the Warp Compressing Machine Co., the Crompton & Knowles Loom Works and the Curtis & Marble Machine Co., each of Worcester, Mass. Lockwood, Greene & Co., Atlanta, Ga., are the architects-engineers and managers of the Winnsboro Mills.

Artificial Silk Mill to Double Capacity.

Plans have been completed by the Viscose Co. of Marcus Hook, Pa., and Roanoke, Va., for the enlargement of its artificial silk mill at Roanoke. The proposed annual capacity will about double its present production of 5,000,000 pounds. A brick and cement building will be erected.

Edge Bank Benefits South's Foreign Trade.

New Orleans, La., June 1—[Special.]—Southern products have been financed in foreign trade, by the South's Edge Bank at New Orleans, to the value of \$3,152,889, since the bank, known as the Federal International Banking Company, was organized four months ago.

LUMBER AND BUILDING MATERIALS

33 Per Cent. Decline in Brick Prices.

According to the monthly digest of conditions in the common brick industry as prepared by the Common Brick Manufacturers Association of America, there has taken place an average price reduction of 33 per cent. A year ago a composite price taken from reports of the membership, representing 60 per cent of the country's production, gave the figure of \$24 a thousand. By January, 1921, the price had settled to \$20.05, and from that point has steadily gone down until a composite price on May 1 shows the figure to be \$16.11. The lowest price quoted in any section of the country comes from the southeast, where keen competition has even outdone Chicago, which due to its favorable clay and high plant efficiency usually maintains the minimum price. In Mississippi and Georgia bricks have netted the manufacturer at the plant not more than \$9 a thousand in some cases which is said to be decidedly below the cost of production. In Chicago, the price is still \$12 delivered.

The current report shows fewer plants closed and a slight reduction of stocks with an indication of a little more business on the books. On May 1 there were 84 plants closed and on June 1 there were 49 closed of those reporting.

Data compiled from 12 operations ranging from residences to large industrial buildings by the secretary of the Connecticut Brick Manufacturers Association shows the cost of brick in relation to the cost of the complete building to range from 5 to 14 per cent with an average in all types of 10 per cent. This figure covered face and common brick. Total cost of the building included only masonry, carpentry, roofing and painting items.

Those sections which are experiencing the beginning of a building revival attribute it to the voluntary reduction on the part of building trades labor. Other sections where labor refuses to take reduction are in the midst of strikes, with practically all work stopped. Freight rates continue to be the greatest handicap in the way of construction, according to the association. Since 1915, between plants and their principal markets there have been increases in freight rates on brick of from 100 to over 500 per cent. According to a questionnaire recently sent out the average increase was in excess of 200 per cent.

Report on Southern Pine.

New Orleans, La., June 6—[Special.]—Reports from 139 lumber mills of the Southern Pine Association for the week ended June 3 indicate receipt of orders amounting to 2,882 cars containing 63,458,758 feet. The production amounted to 70,448,378 feet. Shipments during the week were 6.02 per cent above production and orders were 9.92 per cent below production. Orders were 15.04 per cent below shipments for the week. The actual production was 23.8 per cent below normal and shipments were 19.21 per cent below normal production. The decrease in orders on hand during the week amounted to 4.81 per cent and the orders were 31.36 per cent below normal production.

The average order per mill was 456,538 feet; average shipments, 537,327 feet; average production 506,823 feet. The summary for the week is as follows:

	Feet	Cars
Orders on hand beginning of week.....	10,593	232,247,267
Orders received during week.....	2,882	63,458,758
Total	13,475	296,706,025
Shipments during week.....	3,392	74,688,448
Orders on hand end of week.....	10,083	222,017,577

Building Conditions Improving Throughout Country.

Improved building conditions throughout the country are reflected in replies received by the Southern Pine Association, New Orleans, La., sent to 150 building material dealers in representative cities. Conditions with respect to residence construction are much better, the majority of dwellings being of the smaller type. There is an ample supply of building trades labor. Two cities report a shortage, 67 have sufficient labor to carry out their building program and 11 report unemployment in this class.

There have been wage reductions in only about half of the cities replying. The average reduction in wages of carpenters and bricklayers is from 15 to 20 per cent. Wages of common labor have been reduced in 26 cities from 25 to 55 per cent. A marked increase in efficiency is reported from nearly all cities.

The reduction in the retail price of staple building materials as compared with a year ago is reported as follows:

13 cities—average reduction on all items.....	5%
37 cities—average reduction on lumber.....	17%
12 cities—average reduction on brick.....	20%
19 cities—average reduction on all items excluding lumber.....	10%

In reply to the question as to whether there is money available for building, 20 cities reported sufficient funds, 46 report a shortage and 4 a limited supply. In most communities money will be loaned to home builders upon only 50 per cent of the value of buildings, which it is felt is too low to stimulate residence construction.

Fifty-seven cities report an acute shortage of houses, 10 report a shortage but not acute, while 13 cities report no shortage whatever.

National Building Exposition at Cleveland.

A national building exposition will be held in Cleveland this fall. Ralph P. Stoddard, secretary-manager of the Common Brick Manufacturers Association of America, is director-general. The Cleveland Builders' Exchange is planning to make the exposition of great importance to exhibitors. It will be held in the new \$5,000,000 public hall, which is one of the largest exposition buildings in America, and it will celebrate the 125th anniversary of the founding of Cleveland and the opening up of the vast lake regions, now a great industrial community in the center of the country's largest building operations.

It is required that every exhibit must be educational in nature and demonstrate a step in the operation of designing, buying, building, equipping or furnishing of a building or beautifying its surroundings. This will include architecture, landscaping, contracting, insurance and art, craft, or profession associated with construction work. A. J. Kennedy, convention secretary, Chamber of Commerce, will direct arranging for conventions or meetings at Cleveland during the show, and it is expected that many will be held during its progress.

Huntington Permits Nearly \$400,000.

Huntington, W. Va., June 11—[Special.]—W. B. Smith, inspector of buildings, reports having issued 194 permits during May representing an expenditure of \$392,190. "Building permits are principally for residences," he says, "and not much for business buildings. The outlook is fair for the coming month."

Winston-Salem Permits Exceed \$200,000.

Winston-Salem, N. C., June 11—[Special.]—Construction provided for by permits issued in May totals \$209,534. New buildings numbered 36 amounting to an expenditure of \$196,995 while repairs, alterations and additions were represented by 44 permits involving an investment of \$12,539.

MECHANICAL

Scrapers in Train and Drawn with Tractor.

An interesting and profitable use of the Baker Maney self-loading scrapers has been developed by attaching from two to six of them to a tractor and making a train. The scrapers so used are of the one yard capacity size and the number of them to be connected up in this manner depends upon the hauling capacity of the tractor. It is possible to move a large quantity of dirt in this way and the men required need be only one tractor operator and one scraper operator when no more than three scrapers are employed, but when from four to six scrapers are in line, two operators, it is said are the more economical.

No plowing of the ground is ordinarily necessary, it is stated, since the scrapers dig into it in much the same way as do steam shovels. Moreover, the scrapers can be turned in a space as narrow as 25 feet, following each other like automobile trailers. Each of them holds a full cubic yard of dirt and the pan is automatically

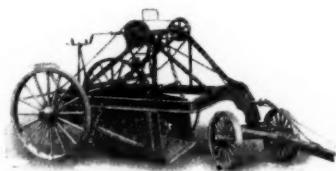


SIX SELF-LOADING SCRAPERS DRAWN BY TRACTOR

lifted by operating a clutch on the rear wheels. The pan rises only to a point previously decided upon and adjustment being made. No further attention is necessary after the pan begins to rise.

The scrapers are dumped by means of a long chain or rope attached to each dumping lever, which may be manipulated by either the tractor operator or the scraper operator. It is not necessary to stop the tractor during the operation of dumping and little time is lost.

These self-loading scrapers are manufactured by the Baker Manufacturing Co., of Springfield, Illinois, and



SELF LOADING SCRAPER

have been in successful use for more than nine years, in other ways than this on road and street excavation work, but the method of using several of the machines in tandem is comparatively new. Furthermore, it should be noted, that scrapers of one-half yard and three-fourths yard are also made.

Practical Test of Industrial Trucks.

A series of elaborate time-motion studies on the work of electric storage battery trucks as compared with wheelbarrows, which was recently made by the Yale & Towne Manufacturing Company at their Stamford, Conn., plant, showed the savings of time and money afforded by the trucks over manual labor.

Accurate records were first made, it is stated, on the cost of handling 600 tons of moulding sand from a freight car to the foundry room 200 feet distant. Of this, 40 feet was a 12 per cent grade up a concrete ramp with a sharp, right angle turn into the shop at the top. It took 18 men with wheelbarrows and shovels six days, working nine hours a day, to transfer the 600 tons of sand. The total cost was \$545.72.

A few weeks later another 600 tons of the same kind of sand, was transferred from a freight car between the same point by a Yale electric truck having a standard detachable end-dump body of 27 cubic feet capacity. With one man driving the truck (he was a member of the former wheelbarrow gang), and an extra man with a shovel to help load the truck, this sand was all transferred in four days, with nine hours work per day, at a total cost, including interest on capital invested, and charges for electric current, used by the truck, of \$183.60. The total number of men employed by this latter method was 10, five loading, four unloading and one operating the truck. Thus on this one job \$362.12 was saved. The mechanical way is standard practice at this plant.

While the capacity of the truck was 27 cubic feet the capacity of a wheelbarrow was only 5 cubic feet. Thirteen men trundled the barrows and five men loaded them. As the mechanical method saved two days time there were no demurrage charges to be paid to the railroad company for the freight car, while in the other case two days' demurrage cost \$50. The labor cost alone for the old method was \$495.72, and by the new method \$183.60 so that on this alone the saving was \$312.12.

FOREIGN NEEDS

[The MANUFACTURERS RECORD receives many letters from abroad asking for information about American goods, and others, from men who wish to represent American houses. Without assuming any responsibility for these concerns, we publish a summary of the foreign letters of inquiry from week to week.]

Hardware.

Andre Descamps, Ste. Anonyme Commerciale, Point-a-Pitre (Guadeloupe), French Antilles.—I wish to represent in Guadeloupe wholesale and retail hardware particularly. This information will be of mutual interest to American factories and our commerce and should permit the establishing of commercial relations.

Paraffine, Etc.

Societe Generale Des Cires Francaises, Montlucon, France.—We should like to obtain the general agency of some paraffine manufacturers for France and the neighboring countries, where we also sell hundreds of tons. We also would be interested in other kinds of articles the sale of which, we are sure would be very important.

Belt Sewing Machine.

L. Gosjean Fils & Co., Le Thillot (Vosges), France.—We are interested in the purchase of a machine for sewing belts and straps with leather thread. Please have manufacturers of such lines of machines send us their quotations for a machine which will meet our requirement—capable of sewing up to 25 mm. thickness and with the greatest width possible.

Leather and Shoe Findings.

Lorenzo Cloquells Sanscho, Carretera Nueva, 153, Mahon, Balearic Islands, Spain.—I am interested in the representation of houses dealing in pattern leather or any line pertaining to the shoe industry. There are on the Island of Minorca about fifty-eight shoe factories, shoe making being the principal and most important industry. To attain success there should be a branch leather warehouse, say at Barcelona, about 12 hours distant, where stock would be kept all the time. Importers in Barcelona and Paris purchase in the United States and at the same time have a warehouse on the island convenient for manufacturers to place their orders for goods wanted immediately. I think that an exporter who is willing to keep a warehouse on this island will reap big success.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane, Plants, Stations, Etc.

Va., Bristol.—A. E. Fuller, J. F. Dunn and others interested in establishing airplane landing, etc.

Va., Hampton.—Hangar.—Government will construct and finish complete wind screen for airship hangar at Langley Field, Va.; bids until June 21; plans with Constructing Quartermaster, Langley Field. (See Machinery Wanted—Wind Screen.)

Bridges, Culverts and Viaducts.

Ala., Tuscaloosa.—State Highway Dept., Birmingham, Ala., will invite bids on bridge across Warrior river; sold \$75,000 bonds. (Lately noted.)

Ark., Rison.—Cleveland County Road Improvement Dist. No. 1 will build 945-ft. wooden pile bridge at Saline river; bids opened; A. B. Robertson, Secy. Comms.

Ga., Atlanta.—Fulton County will build 11 highway bridges; concrete; \$150,000. Address County Comms.

Mo., Fulton.—State Highway Dept., Jefferson City, Mo., will build two 75-ft. pony truss spans, concrete floor, 2 reinforced concrete abutments and reinforced concrete pier; \$18,238.90; Federal Aid Project 136, Callaway County; bids until June 18; A. W. Graham, State Highway Engr., Jefferson City. (See Machinery Wanted—Bridge Construction.)

N. C., Goldsboro.—Wayne County will sell \$25,000 bonds for bridge construction. Address County Comms.

Okla., Cordell.—Washita County let contract at \$23,000 for building bridges. Address County Comms.

Okla., Fairview.—State Highway Dept., Oklahoma City, Okla., let contract to Kansas City Bridge Co., Kansas City, Mo., at \$7,982 for two 60-ft. bridges in Major County.

Okla., Muskogee.—Muskogee County will build 1,700 ft., 1,300 ft., 900 ft. and 800 ft. bridges; steel super-structures on concrete piers and abutments; \$1,000,000; bids about July 15. Lately noted selling bonds. (See Machinery Wanted—Bridge Construction.)

S. C., Walterboro.—Colleton County let contract to W. M. Padgett & Co., Rock Hill, S. C., at \$11,000 for 2 reinforced concrete bridges, 88 and 66-ft.; P. M. Buckner, Highway Commr. (Lately noted inviting bids.)

Tenn., Dyersburg.—Tennessee State Highway Dept., Nashville, let contract to R. L. Bartholemew, 867 Roland St., Memphis, Tenn., at \$21,407.83 for 20-ft. span bridges; W. P. Moore, Ch. Engr., Nashville.

Tenn., Lawrenceburg.—Lawrence County Highway Coms., will build steel bridge over Shoal Creek on Loretto and West Point road; 465 ft. long between abutments embracing two main spans 140 to 150 ft. each; 2 reinforced concrete abutments and concrete piers about

30-ft. high; bids until June 22; W. E. Kelly, Secy. (See Machinery Wanted—Bridge Construction.)

Tenn., Mountain City.—Tennessee State Highway Dept., Nashville, let contract to Little Lumber Co., Anniston, Ala., at \$8,569.01 for building bridges over 20-ft. span; Johnson and Sullivan counties; W. P. Moore, Ch. Engr., Nashville.

Tex., Banquette.—Nueces County let contract to Johnson Construction Co., Corpus Christi, Tex., at \$23,000 for 225-ft. bridge over Agua Dulce Creek consisting of ten 20-ft. spans of reinforced concrete; O. N. Powell, County Engr., Corpus Christi, Tex. (Lately noted in-viting bids.)

Tex., Boston.—Bowie County let contract for 4 bridges on North State line between Texarkana and bridge across Red river. Address County Court.

Tex., Fort Smith.—United States Bureau Roads, Washington, D. C., approved plans for viaduct across Arkansas river, forming 2,000-ft. connection between Arkansas and Oklahoma.

Tex., Waxahachie.—Ellis County let contract to Austin Bros. Bridge Co., Dallas, Tex., at \$26,263.50 for bridge over Chambers Creek; F. L. Wilson, County Judge; G. G. Edwards, Engr., Ennis, Tex.

Tex., Wheeler.—Wheeler County plans construction of 1,500-ft. bridge over Red river; \$150,541.60; Henry Holmes, County Commr., Shamrock, Tex.; Percy V. Pennybacker, State Resident Engr.

Va., Amelia.—Virginia State Highway Coms., 116 S. Third St., Richmond, Va., will build reinforced concrete bridge over Nibbs Creek, Amelia County; State Road No. 20; Virginia Project No. S-47; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Bridge Construction.)

Va., Snowden.—Virginia State Highway Coms., 116 S. Third St., Richmond, Va., will build steel bridge over James river between Amherst and Bedford counties on State Road No. 14; Va. Project No. 48-D; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Bridge Construction.)

Va., Snowdon.—Virginia State Highway Coms., 116 S. Third St., Richmond, Va., will build steel bridge over James river between Amherst and Bedford counties on State Road No. 14; Va. Project No. 48-D; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Bridge Construction.)

Ala., Eutaw.—Warrior Cannery, organized with Jno. McKinley, Prest.; J. Edwin Gray, Secy.-Treas.; will install cannning equipment, costing \$700. (Lately noted Chamber of Commerce interested in establishing cannery.)

Fla., Arcadia.—Tropics Products Co., organized with R. H. Dougherty, Prest.; J. R. Payne, Secy.; W. F. Nichols, Treas.; will erect 90x60-ft. initial unit of fireproof cannery; cost approximately \$5,000; install \$10,000 machinery; daily output 400 doz. containers citrus fruit products; bids open; H. F.

Fingerson Co., Constr. Engr., Cleveland, O. (Lately noted inceptd., capital \$50,000. (See Machinery Wanted—Citrus Products Machinery; Containers; Labels; Bottling Machinery; Bottles; Boiler; Engine; Tanks.)

Fla., Palmetto.—E. W. Stoltz plans constructing 2-story 130x59-ft. packing house; will install machinery.

Va., Richmond.—Van Camp Packing Co., capital \$3,750,000; inceptd. with Whiting C. Faulkner, Prest.; M. F. Calmes, Secy.

W. Va., Shepherdstown.—Apple Products Co., capital \$25,000; inceptd. by E. L. Goldsborough, Shepherdstown; H. C. Brooks, Martinsburg, W. Va.; acquired \$25,000 brick building; will remodel to pack apples and their by-products.

Clayworking Plants.

N. C., Hot Springs.—Bricks.—Jas. E. Reeder, of Rector, Blackstock & Taylor, 8 Technical Bldg., Asheville, N. C.; plans installing additional drying and burning facilities to increase daily output 25,000 bricks; leased plant to Asheville Shale Brick Co. (See Machinery Wanted—Bricks; Crates, etc.; Engine; Scrap-er; Belts; Bands; Pipe.)

S. C., Gaffney.—McCraw Brick Co., C. D. Meadows, Secy.-Treas.; plans installing compressor to mfre. pressed brick; also install steam shovel.

Va., Boydton.—Baptist & Goode contemplate establishing plant to mfre. clay or cement building bricks. (See Machinery Wanted—Bricks.)

Coal Mines and Coke Ovens.

Ky., Harlan.—Slater's Fork Coal Co., capital \$50,000; inceptd. by John E. and K. C. Brown, both Harlan; G. P. Sharp, Middlesboro, Ky.

Ky., Harlan.—Slater's Fork Coal Co., capital \$50,000; inceptd. by John E. and K. C. Brown, G. P. Sharp.

Ky., Williamsburg.—Southern Coal & Coke Co. increased capital from \$100,000 to \$500,000.

Tenn., Chattanooga.—Sewanee Coal Co., capital \$10,000; inceptd. by John E. Patton James M. Adams, H. H. Gray. (Supersedes recent item.)

Tex., Rockdale.—Empire Fuel Co., inceptd. with Paul S. Miller, Prest., Dallas, Tex.; consolidation of International Coal & Brick Co., Santa Fe Co., Rockdale Lignite Co. and the Witcher mines, each having active shafts, will continue developments.

Va., Richlands.—Raven Red Ash Coal Co. let contract to Scottdale Foundry & Machine Co., Scottdale, Pa., to erect four track tipple, with daily capacity of 1,000 tons, also construct aerial tramway, 2 loading booms.

W. Va., Charleston.—William Dempster Coal Co., capital \$30,000; inceptd. by William Dempster, Duncan Reid, C. S. Munro.

W. Va., Clarksburg.—Jones-Koblegard Coal Co., capital \$100,000; inceptd. by Robert M. Jones, John Koblegard, Jr., Howard L. Robinson.

W. Va., Clay.—Elk Development Co., capital \$50,000; inceptd. by W. S. Pierson, S. H. McLane, O. L. Hall.

W. Va., Princeton.—Micajah-Pocahontas Coal Co., capital \$300,000; inceptd. with L. R.

Taylor, Prest.-Mgr.; will develop 500 acres land.

W. Va., Thomas.—Davis Coal & Coke Co., A. W. Galloway, Prest., Continental Bldg., Baltimore, Md., will expend \$200,000 on plant improvements, erect 2 steel tipples, etc.

W. Va., Marshall and Ohio Counties.—Lorain Coal & Dock Co., Wheeling, W. Va., reported to have purchased 15,000 acres coal land with considerable river frontage.

Cotton Compresses and Gins.

Miss., Isola.—Planters' Gin Co., capital \$15,000; inceptd. by A. M. Linton, G. W. Payne.

Okla., Okemah.—Barry Bros., J. R. Barry, Mgr. and Constr. Engr., will erect 90x20x18 or 16-ft. fireproof cotton ginnery; install ginning machinery complete; daily output 30 to 40 bales cotton. (Lately noted burned at loss of \$20,000.)

Tex., Belton.—Belton Gin & Grain Co., capital \$30,000; inceptd. by P. M. Keller, W. W. Thornton.

Tex., Buda.—Independent Gin Co., capital \$20,000; inceptd. by W. M. Woods, J. R. Howe.

Tex., Corpus Christi.—Caldwell Gin Co., capital \$30,000; inceptd. with G. G. Henson, Prest.; Geo. L. Caldwell, V.-P. and Mgr.; J. T. Lomax, Secy.-Treas., will erect 1-story corrugated iron building; install machinery.

Tex., Corsicana.—E. J. Cruse, Lon Powell and associates, will erect cotton ginnery in Cryer Creek community; install four 70-saw gin stands.

Tex., Cotulla.—Terry Gin Co. will rebuild burned plant.

Tex., Kenedy.—Farmers' Gin Co., capital \$16,000; inceptd. by G. C. Rupmann, J. A. Smith.

Tex., Sinton.—Guaranty Gin Co., capital \$15,000; inceptd. by J. H. Morrow, E. C. McDaniels.

Cottonseed-Oil Mills

Tex., Clarksville.—Clarksville Seed Co., capital \$35,000; inceptd. by F. A. Antone, R. Isbell.

Drainage Systems.

Fla., Tallahassee.—Everglades Drainage Dist., Board of Trustees, has authority to issue an additional \$1,750,000 bonds for drainage work in dist.

La., Covington.—St. Tammany Parish, 4th Ward, will dredge channel from Lake Pontchartrain into Bayou Castaign, construct revetment for protection; voted \$25,000 bonds; W. E. VanZant, in charge, Mandeville, La.

La., Lake Charles.—Commsrs. of Lake Charles Drainage Dist. No. 1 let contract to Lake Arthur Dredging Co., Lake Arthur, La., to remove 609,120 cu. yds. dirt; sold \$100,000 bonds; T. H. Mandell, Engr. (Bids lately noted.)

Md., Somerset County.—State Conservation Comsnn. at suggestion of Governor Albert Ritchie prepare survey and estimate cost of cleaning and widening channel of Marumsco Creek, reclaiming 60,000,000 sq. ft. marsh land; Swenson Earle, Engr., Munsey Bldg., Baltimore, Md.

Miss., Cleveland.—Central Drainage Dist. Commsrs., Bolivar County will construct canals and ditches, total excavation 1,137,305 cu. yds.; reclaim 34,840 acres; bids until June 21; W. W. Boone, Engr. Supersedes recent item. (See Machinery Wanted—Drainage.)

Mo., Poplar Bluff.—Inter-River Drainage Dist. Commsrs. will complete drainage system; issued \$400,000 bonds.

Electric Plants.

Ala., Fort Payne.—A. A. Miller, Chattanooga, Tenn., purchased municipal electric

lighting plant; install machinery in power house; generators ordered; will install.

Fla., Wanchula.—J. G. Faney, Fort Meade, organized company to erect electric light, ice and cold storage plant; cost \$200,000; will furnish electricity to Wanchula, Zolfo, Bowling Green and Fort Meade.

Ga., Thomaston.—Thomaston Cotton Mills, R. E. Hightower, Prest., will erect power plant to develop electricity for mills.

Ky., Stanton.—Stanton Utilities Co., capital \$10,000; inceptd. by Jesse Swanson, Jas. Profitt.

Ky., Water Valley.—Water & Light Co., capital \$50,000; inceptd. by Ben Bennet, T. E. Eaker.

La., Crowley.—City voted \$100,000 bonds to rewire city; install 500-H. P. engine at power plant and repaving. Address The Mayor.

Miss., Shelby.—Shelby Light & Power Co., capital \$40,000; inceptd. by Daniel Bradera, L. B. Wilkinson.

Mo., Independence.—City voted \$35,000 light plant bonds. Address The Mayor.

Mo., New Haven.—City, Jno. Greenstreet, Clk., let contract to H. H. Waschemeyer, Washington, Mo., to alter, improve and erect additions to electric power plant; to Fairbanks & Co., 620 Market St., St. Louis, Mo., for engines and equipment; Fuller & Beard, Engrs., Chemical Bldg., St. Louis, Mo. (Lately noted bids until May 20.)

Okla., Bryan.—City plans voting \$15,000 bonds to construct transmission line from Kiowa, Kan., to Bryan; W. B. Rollins Engineering Co., Engr., Kansas City, Mo.

Okla., Cushing.—City is extending electric light system; construct 15 mi. poles and wire. Address The Mayor.

Okla., Sayre.—City, W. Ben Turner, Chrmn., will expend \$35,000 on plant improvements; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City, Okla. Lately noted. (See Machinery Wanted—Engines; Generator; Water Mains; Pipe.)

S. C., Greenwood.—Greenwood Water & Light Co., A. J. Sproles, Supt., will install transformers and regulators in plant; double capacity; increase street lights from 200 to 400.

Tenn., Paris.—City, J. R. Rison, Jr., will vote June 18 on \$250,000 bonds to extend electric street lighting system, rebuild streets, and for city park, etc.

W. Va., Kingwood.—West Virginia & Maryland Power Co., capital \$50,000; inceptd. by Carleton C. Pierce, Kingwood; N. M. Seabreese, Philadelphia, Pa.

Fertilizer Plants

Tenn., Mt. Pleasant.—Phosphates Products Co., capital \$25,000; inceptd. by E. E. Fisher, N. B. Stewart.

Flour, Feed and Meal Mills.

Ky., Franklin.—Franklin Kentucky Mills Co., capital \$50,000; inceptd. by Jno. H. Durham, W. B. Douglas.

Ky., Owensboro.—Louisville Milling Co., capital \$20,000; inceptd. by A. S. Haynes, E. S. Tucker.

Mo., Kansas City.—Quisenberry Feed Mfg. Co., T. E. Quisenberry, Prest.-Mgr., let contract to Lerack Construction Co., to erect 6-story, 150x60-ft. mill construction building; purchased \$25,000 machinery; will install; daily output 5 cars poultry feed. (Lately noted.)

Tex., Belton.—Belton Gin & Grain Co., capital \$30,000; inceptd. by P. M. Keller, W. W. Thornton.

Tex., San Saba.—Childress Grain Co., Tem-

ple, Tex., purchased San Saba Flour Mills; will remodel and install machinery; plans constructing spur track from railroad.

Foundry and Machine Plants.

Ala., Birmingham.—Machine Shop.—E. T. Beatty, 1 South 20th St., let contract to Joseph T. Ryerson & Son, Chicago, Ill., at \$10,000 to erect 66x101-ft. machine shop; steel, fireproof construction; install \$40,000 machine tools, all purchased. (Lately noted incorrectly as Atlas Machine & Foundry Co., erecting plant.)

Fla., Miami.—Repair Shop.—Miami Electric Light & Power Co., W. Flagler St., let contract to W. B. Savage Construction Co. at \$10,000 to erect light and meter repair shop.

Ky., Louisville.—Iron, etc.—Southern Iron & Steel Co., organized with E. M. Drummond, Prest.; Robert V. Board, V.-P.; Jas. A. Drummond, Secy.-Treas.; Wm. M. McKenzie, Mgr.; mfrs. bar iron, rounds, squares and flats; daily capacity 75 tons. (Lately noted inceptd. capital \$100,000.)

Md., Frederick.—Tanks, etc.—Consolidated Accessories Mfrs. Co., capital \$50,000; organized with H. N. Schofield, Prest.; H. E. Rutherford, Secy.-Treas.; mfrs. reservoir tank with turbine force pump.

Mo., Joplin.—Road Building Machinery, etc.—Agrimotor Mfg. Co., Wichita, Kan., will erect plant for mfrs. of road building mchys. and farm tractors.

Okla., Henryetta.—Refrigerators.—W. K. Knutson Co., Wichita Falls, Tex., contemplates establishing plant for mfrs. of vacuum refrigerators; vacuum chambers will be of a unit. (See Machinery Wanted—Lumber; Metal Stamping.)

Tenn., Dyersburg.—Vending Machines.—Bunn Vending Machine Co., organized with A. A. Kirk, Prest.; J. M. Bunn, V.-P.; E. T. Weakley, Secy.; H. R. Meriweather, Treas.-Mgr.; has building, will install stamping and welding machines. Supersedes recent item. (See Machinery Wanted—Stamping Machines—Welding Machines.)

Tenn., Knoxville.—Radiators, etc.—Combined Grate & Radiator Heating Co., capital \$30,000; inceptd. by Walter E. DeArmond, Herbert E. Kelly, W. T. Kennerly.

Tenn., Shiner.—Plows, Wm. Wendland, Sr., will organize company, establish plant to mfrs. plows, etc.

W. Va., Bluefield.—Armature.—West Virginia Armature Co. increased capital from \$50,000 to \$250,000.

W. Va., Wheeling.—Steel.—Wheeling Steel Corp., Market St., let contract to J. L. Wood & Co., to remodel and repair building, costing \$10,000.

Gas and Oil Enterprises.

Ark., Booneville.—Booneville Oil & Gas Co., capital \$10,000; inceptd. by C. A. Greenway, H. C. Sadler.

Ark., Helena.—Refinery.—S. A. and B. L. Lane, Little Rock, Ark., contemplates erecting \$25,000 refinery. Address Chamber of Commerce.

Ark., Pine Bluff.—Army & Oil Syndicate capital \$200,000; inceptd. with J. D. Vaughn, Prest.; W. T. Orton, Secy.-Treas.

Ark., Pine Bluff.—Refinery.—Oneta Refining Co., H. C. Mier, V.-P., Oneta, Okla.; will erect refinery with daily capacity of 1,000 bbls. crude oil; cost \$300,000. (Lately noted contemplated.)

Ark., Stuttgart.—Ernestine Malo Development Co., capital \$50,000; inceptd. by E. E. Ernestine, O. A. Malo.

Fla., Jacksonville.—Citizen's Gas & Oil Co., R. M. Lamb, Local Mgr., plans expending

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\$50,000 to erect oil plant; purchased 250x200 ft. tract; will construct 5 storage tanks, two with 20,000 gals. capacity each and three with 10,000 gals. capacity each; also erect 1-story brick office building.

Ga., Americus.—Americus Lighting Co., R. P. Ewing, Supt., let contract to Russell Engineering Co., St. Louis, Mo., to install gas mfg. machinery in plant.

Ky., Bowling Green.—Southern States Oil Co., capital \$250,000; incptd. by W. A. Pollard, C. H. Scott.

Ky., Owensboro.—Square Deal Oil & Gas Development Co., capital \$15,000; incptd. by J. Freeman Short, Forrest McIntyre.

La., Alexandria.—Monteray Lake Oil Co., capital \$20,000; incptd. with T. H. Barnett, Preast, Vivian, La.; Steve N. Manteris, Secy.-Treas., Alexandria.

Md., Baltimore.—Standard Oil Co., Pratt & Commerce Sts., will erect 1-story 142.6x93 ft. fireproof addition to boiler house.

Mo., Pomona.—Pomona Oil & Gas Co., capital \$100,000; organized with A. L. Babb, Secy.-Treas.; construct \$9,000 rig for drilling. (Lately noted.)

Okla., Okmulgee.—Hammond Oil & Gas Co., capital \$50,000; incptd. by Vaughn Twibell, J. H. Thompson.

Okla., Okmulgee.—Pipe Line.—Rebold Pipe Line Co., J. H. Rebold, 310½ W. Main St.; has buildings; install \$50,000 equipment; daily capacity 5,000 bbls. through pipe line; H. E. Rooschael, Engr. (Lately noted incptd., capital \$50,000.)

Tex., Callaghan, P. O. Laredo.—Cross Plains Gas Co., capital \$10,000; incptd. M. E. Wakefield, C. C. Neb.

Tex., Emhouse.—Lone Star Drilling Corp., capital \$50,000; incptd. by R. E. and L. R. Jones.

Tex., Houston.—Stone Fort Oil Co., capital \$150,000; incptd. by V. P. Neuhaus, Taylor J. Hughes.

Tex., Houston.—Shippers' Petroleum Co., capital \$25,000; incptd. by R. L. Autrey, Hugh Hamilton.

Tex., Sherman.—Refining.—Buffalo Producing & Refining Co., T. F. Wood, Secy.-Treas., will enlarge plant; increase capacity from 300 to 1,000 bbls.; absorbed Texas Interstate Producing & Refining Co.

Va., Pulaski.—Texas Oil Co., Willard Thompson, Norfolk, Va.; secured site; will install storage tanks.

W. Va., Weston.—Bell Park Oil Co., capital \$18,000; incptd. by Joe Brothers, H. P. Henry.

Ice and Cold-Storage Plants.

Fla., Lakeland.—American Fruit Growers Assn. will erect \$300,000 ice mfg. plant for icing refrigerator cars; has site.

S. C., Georgetown.—Morris & Co., main office Chicago, Ill., reported to erect 40-ton capacity ice plant; has one acre site.

Va., Radford.—Norfolk & Western Ry., J. E. Crawford, Chief Engr., Roanoke, Va., reported to erect plant to mfr. ice for entire system; daily capacity 30 cars.

Hydro-Electric Plants.

Va., Boydton.—Federal Power Comsn., Washington, D. C., granted preliminary permit to Roanoke River Development Co., Mutual Bldg., Richmond, Va., for establishment of waterpower development plant on Roanoke river in Mecklenburg County; 50,000 H. P.

Land Developments.

Fla., Hicorin.—Redland Grove Co., Arcadia, Fla., organized with D. S. McSwain, Prest.

R. L. Cline, Secy.-Treas.; A. W. Pearce, Mgr. (Lately noted under Arcadia, Fla., incptd. capital \$24,000.)

Md., Baltimore.—Park Heights Manor Development Co., Equitable Bldg., increased capital to \$250,000.

Md., Baltimore.—Owen Land Co., 912 Lovegrove St., capital \$100,000; incptd. by F. Stanley Porter, Theodore C. Waters.

Miss., Gulfport.—Magnolia State Land Co., capital \$50,000; organized with A. D. Hawthorne, Prest.; F. S. Bennett, Secy.; M. A. Schlick, Treas.; will develop 2,000 acres, for truck farms and groves, adjoining Lyman, Miss., on Bay St. Louis, near Pass Christian, Miss., and near Wortham, Tex.; M. T. Shinn, in charge of local office. (Lately noted.)

Miss., Natchez.—Mounger Land Co., capital \$20,000; incptd. by W. D. Mounger, L. R. Martin.

N. C., Wilmington.—City purchased lot to develop for public playground; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.

Tenn., Paris.—City, J. R. Rison, Jr., will vote June 18 on \$250,000 bonds for city park, extend electric street lighting system; rebuild streets, etc.

W. Va., Beckley.—Knob Hill Land Co., capital \$60,000; incptd. by W. L. Foster, F. Scott.

W. Va., Huntington.—Overlook Park Co., capital \$50,000; incptd. by H. L. Robey, S. H. Bowman.

Lumber Manufacturing.

Ala., Mobile.—Edey Lumber Co., capital \$10,000; incptd. by A. A. and McA. Edey, William M. Armbrith.

Ark., Huttig.—Union Sawmill Co., F. W. Scott, local Mgr., will erect 300,000 ft. capacity sawmill, latest type equipped with modern mchly.; Filer & Stowell Co., Milwaukee, Wis. (Lately noted burned.)

Miss., Hattiesburg.—Brookhaven Lumber Co., M. Dreyfus & Sons, Propr., will rebuild plant burned at loss of \$200,000.

Miss., Hattiesburg.—Brookhaven Lumber & Mfg. Co., W. J. Dreyfus, Mgr., will rebuild burned plant; erect 80x120-ft. planing mill, 60x120-ft. dry kilns, 100x200 rough shed and 100x200-ft. dressed shed, all mill construction; install planing mill mchly., electric motors, etc.; probably install additional 6 ft. band mill; bids about July 1. (See Machinery Wanted—Planing Mill Machinery; Motors; Dry Kilns.)

S. C., Fairmont.—John M. Kisner & Bro. increased capital from \$50,000 to \$100,000.

W. Va., Beckley.—Beckley Lumber & Supply Co., capital \$25,000; incptd. by T. J. McGinnis, A. G. Sutphin, Tobin Staber.

W. Va., Horton.—Parsons Pulp & Lumber Co., main office Philadelphia, Pa., plans to build double mill, develop timber tracts at both Horton and Seneca, Va.

Metal-Working Plants.

Mo., St. Louis.—Cables and Wires.—Standard Underground Cable Co., Joseph W. Marsh, Prest., Pittsburgh, Pa., will erect plant for mfr. of electric wires and cables used in installation work of firm; reported to expend between \$2,000,000 and \$3,000,000 in next 12 months.

Mining.

Ark., Rush.—Zinc.—M. Baum, Fayetteville, Ark., will develop zinc land, J. B. Melton, in charge.

N. C., Montgomery County.—Gold.—D. C. Stanback, Jonesboro, N. C., interested in mining of gold.

N. C., Penland.—Mining.—Blue Ridge Mining Co., capital \$25,000; incptd. by Ewing Carter, C. B. Martin, both Penland; D. G. Martin, Bessemer City, N. C.

Miscellaneous Construction.

Ala., Birmingham.—Swimming Pools.—City, J. Ellis Brown, Commr., has plans to construct additional swimming pools, located at West End, central part of city and at Avondale.

Ala., Greenville.—Swimming Pool.—Electric & Mfg. Corp. will construct swimming pool.

La., Covington.—Seawall, etc.—4th Ward, St. Tammany Parish, will complete seawall, drain ravine and hard surface streets; voted \$32,000 bonds; W. E. VanZant in charge, Mandeville, La.

Miss., Gulfport.—Retaining Wall.—Gulfport Comsn. Council let contract to C. P. Windsor to build retaining wall of roadway to be constructed to municipal pier.

Mo., Alton.—Levee.—Wood River Drainage Board let contract to Mulville Bros. to build levee, including the straightening Wood River near tile works, excavation and rip-rapping.

N. C., Durham.—Memorial Monument.—Junior Order of United American Mechanics will erect hero memorial monument on Court House lawn; R. M. Gantt and E. C. Gunter representing order.

N. C., Greensboro.—Swimming Pool.—City Council authorized M. M. Boyles to repair swimming pool.

Okla., Purcell.—City contemplates constructing concrete swimming pool. Address The Mayor.

S. C., Charleston.—Docks, etc.—War Dept., Washington, D. C.—Senate authorized continuation of appropriations of 1918 for dry dock and channel at Charleston navy yard, including \$1,150,000 for dry dock and unexpended appropriations from a fund of \$1,500,000 for dredging.

Tenn., Memphis.—Terminals.—Brig. Gen. W. D. Connor has selected site for river terminal to be constructed by Government, \$450,000 has been appropriated for local project; W. B. Fowler, City Engr. (Previously noted city voted \$500,000 bonds supplemented by \$450,000 by Government.)

Tex., Freeport.—Levee.—City, E. C. King, S. C., will enlarge and strengthen existing levee system; invites bids; sold \$133,000 bonds. (See Machinery Wanted—Levee Construction.)

Va., Lynchburg.—Memorial Mountaint.—H. H. Harris, Prest., Lynchburg Memorial Committee has tentative plans for memorial monument.

Va., Petersburg.—Dam.—City let contract to George, Haskins & George, Richmond, Va., to construct dam across Appomattox River at Pocahontas Bridge, also dredge ½ mi. of harbor from Lieutenant Run to Pocahontas Bridge; total expenditure about \$36,000; Col. Oakes, U. S. Army Engr.

Miscellaneous Enterprises.

Fla., Jacksonville.—Dairy.—Cotton States Cattle Loan Co., V. B. Leonard, Gen. Mgr., will erect dairy plant.

Fla., Miami.—Laundry.—Miami Laundry Co., R. B. Leonard, Prest.-Mgr., let contract to Haffer & Riley at \$25,000 to erect 50x150-ft. fireproof laundry building; install \$50,000 laundry mchly. all purchased; C. V. Petit, Archt. (Lately noted incptd., capital \$100,000.)

Fla., Tampa.—Incinerators.—City has under construction incinerator plant, materials all purchased; A. W. D. Hall, City Mgr., in charge.

Fla., West Palm Beach.—Publishing.—Post Publishing Co., will erect plant; purchased 75x153-ft. site.

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ga., Carrollton.—Potato Curing.—Mandeville Mills, W. J. Aldridge, Secy., will erect 24x120-ft. sweet potato curing and storage house, ordinary frame with double siding; 10,000 bu. capacity; construction by owners; J. A. Aycock, Engr. (Lately noted. See Machinery Wanted—Crates; Hampers.)

Ky., Covington.—Builders Supplies.—Fisher Builders' Supply Co., inceptd. with \$15,000 capital.

Ky., Louisville.—Dairy.—Shawnee Sanitary Milk Co., capital \$10,000; inceptd. by William Schneider, John Ochsner, George J. Pape.

La., Alexandria.—Transportation.—Smith & Hudson, establish barge line between Maurice, Harris Ferry and Alexandria.

Md., Baltimore.—Incinerator.—Board of Awards, Wm. F. Broening, Prest., has plans for proposed garbage disposal plant; H. G. Perrin, Chief Engr.

Md., Baltimore.—Dry Cleaning, etc.—Metropolitan Dry Cleaning & Dyeing Co., 1618 McElderry St., capital \$25,000; inceptd. by Joseph Eichberg, Ben Roth, Andrew J. Devlin.

Md., Baltimore.—Gauging and Weighing.—Maryland Gauging & Weighing Co., 208 Chamber of Commerce Bldg., inceptd. by T. Spence Creney, Frank R. Wessel, J. William Winters.

Md., Baltimore.—Plumbing, etc.—Lewis H. Bennett & Son, 700 Madison Ave., inceptd. by Lewis H. Royston, R. and S. Frank Bennett.

Md., Baltimore.—Advertising.—Bronsign Co., 500 Woodlawn Rd., capital \$50,000; inceptd. by Maurice K. Heartfield, Sidney C. Doolittle, Francis K. Murray.

Md., Baltimore.—Steamship Line.—Bulk Fruit Steamship Corp., 841 Calvert Bldg., inceptd. by W. Ainsworth Parker, John G. Schiipp, James B. Diggs.

Md., Salisbury.—Transportation.—Short Transit Line Co., increased capital to \$150,000.

Mo., Excelsior Springs.—Disposal Plant.—City, Walter Bales, Clk., will construct disposal plant; bids open; Shockley Engineering Co., Engr., 800 Graphic Arts Bldg., Kansas City, Mo.

N. C., Charlotte.—Laundry.—Sanitary Steam Laundry will erect additional building to plant.

N. C., Greensboro.—Electrical Repair.—Carolina Electric & Repair Co., 232 S. Davie St., capital \$25,000; inceptd. by C. W. Moore, J. J. McDonald, J. A. Tolbot; specialize in rewinding motors of larger type.

N. C., Greensboro.—Amusements.—Kool Pool Co., 113 Lindsay St., capital \$25,000; inceptd. by W. W. and J. L. Raper.

N. C., Raleigh.—Rock Crushing.—State Highway Coms., Frank Page, Chrmn., will erect 2 rock crushing plants in the state, approximate cost \$200,000.

N. C., Rutherfordton.—Cleaning, etc.—F. F. Goddard, Knoxville, Tenn., will establish cleaning, dyeing and pressing plant.

N. C., Waco.—Potato Curing.—R. E. Lawrence, County Farm Demonstrator, interested in erection of 4 potato curing houses, capacity of each 2,500 bu.

N. C., Wilmington.—Mill Supplies.—F. S. Burr interested in organizing company to handle mchly. and mill supplies. (See Machinery Wanted—Mill Supplies.)

S. C., St. George.—Potato Curing.—M. S. Connor and others interested in establishing 10,000 bu. capacity potato curing house.

Tenn., Knoxville.—R. G. Hill Co., capital \$150,000; inceptd. by Fred C. Houk, R. F. Hill, Jr., R. W. E. Thompson.

Tenn., Nashville.—Printing.—Nashville Printing Co., capital \$25,000; inceptd. by W. G. Jones, C. W. Baker, F. L. Williams.

Tex., Dallas.—Amusements.—Great Southern Amusement Co., capital \$10,000; inceptd.

by E. G. Edwards, J. H. Harris, B. S. Morgan.

Tex., Fort Worth.—Printing.—J. P. Milligan Printing Co., capital \$65,000; inceptd. by J. P. Milligan, C. Getz, A. S. Truax.

Tex., Waxahachie.—Publishing.—Tribune Publishing Co., 208 W. Franklin St., organized with Geo. W. Coleman, Prest.; Pat W. Sims, V.-P.; T. N. Herring, Secy.-Treas. and Mgr.; will establish \$14,000 plant. (Lately noted inceptd.)

Va., Portsmouth.—Construction.—W. M. Mutter Corp., capital \$10,000; inceptd. with A. F. Flynn, Prest.; F. L. Mutter, Secy.

W. Va., Davy.—Hardware, etc.—Davy Hardware & Furniture Co., capital \$25,000; W. G. Morgan, J. A. Burgess.

W. Va., Huntington.—Construction.—Messenger Construction Co., capital \$50,000, inceptd. by James E. Doyle, D. B. Daugherty, both Huntington; J. C. Messinger, Sheridan, W. Va.

Miscellaneous Factories.

Ala., Alexander City.—Creamery.—Chamber of Commerce, L. B. Dean, Secy., will erect \$10,000 creamery. (Lately noted contemplated.)

Ala., Mobile.—Paints, etc.—Mobile Paint Mfg. Co., capital \$50,000; inceptd. with W. A. Benson, Prest.; H. R. Luscher, Treas.; Carter Luscher, Secy.

Ala., Selma.—Drugs.—Cawthon.—Coleman Drug Co., C. A. McKinnon, Secy., contemplates increasing capital \$5,000.

Fla., St. Petersburg.—Shoe Polish, etc.—Shinem Mfg. Co., Geo. W. Wrennick, Gen. Mgr., will erect 2-story 100-40-ft. cement block construction factory building; mfre. shoe polishers and cleaners.

Fla., Tampa.—Frozen Products.—Florida Frozen Products Co., 6th Ave. and 22d St., organized with V. C. Lokey, Prest.-Mgr.; J. V. Liles, Secy.-Treas.; let contract to S. A. Cardonia, at \$50,000 to construct 2-story brick fireproof factory building; install \$50,000 to \$60,000 machinery; daily output 4,000 gals. ice cream; R. M. Sloan, Constr. Engr. (Lately noted inceptd., capital \$50,000.)

Ga., Atlanta.—Rubber Goods.—Cotton State Rubber Mfg. Co., organized with Geo. J. Reiter, Prest.; W. S. McKenna, Secy.; will establish plant to mfre. rubber belting, packing, rubber mats, heels, etc.

Ga., Macon.—Creamery.—Chamber of Commerce, F. Roger Miller, Secy., interested in establishing creamery and butter factory.

Ky., Ashland.—Shoes.—John Lee Shoe Co., capital \$20,000; inceptd. by H. L. Johnson, Ashland; John Lee, Charleston, W. Va.

Ky., Hazard.—Ice Cream.—Hazard Ice Cream Co., inceptd. with \$30,000 capital.

Ky., Newport.—Confectionery.—Peerless Confection Co., increases capital from \$40,000 to \$70,000.

La., New Orleans.—Molasses, etc.—Dunbar Molasses & Syrup Co., plans issuing \$400,000 bonds to extend plant.

Md., Baltimore.—Novelties.—Delaqua Novelty Co., 202 Law Bldg., capital \$100,000; inceptd. Frank and Louis Delqua.

Md., Baltimore.—Millinery.—Empire Millinery Co., 225 N. Howard St., capital \$10,000; inceptd. by Jno. N. Walters, Sarah F. Freed.

Md., Baltimore.—Confectionery.—Voneiff-Drayer Co., 1604 Harford Ave., capital \$50,000; inceptd. by Sumner M. Drayer, Jno. Voneiff, Jr.

Md., Baltimore.—Clothing.—People's Mfg. Co., 1538 Division St., capital \$50,000; inceptd. by Wm. A. Fredericks, Wm. Green.

Md., Baltimore.—Fried Cakes.—Baltimore Cream Fried Cake Co., 203 Diamond St., capi-

tal \$25,000; inceptd. by Jno. J. Kinsel, Harry E. Young.

Mo., St. Louis.—Health Food.—American Health Food Corp., Providence, R. I., will establish plant; leased 4-story building equipped with sprinkler system, heat plant, etc.; will remodel.

N. C., Charlotte.—Syrup.—Southern Parfay Co., capital \$100,000; inceptd. with Morgan Howells, R. A. Brown; plans establishing syrup factory.

N. C., Charlotte.—Orange Crush.—Charlotte Orange Crush Bottling Co., capital \$50,000; inceptd. by W. F. Kaderly, C. T. Talaferro.

N. C., Greensboro.—Tobacco.—Greensboro Tobacco Market, capital \$250,000; inceptd. by J. E. Latham, A. B. Joyner.

N. C., Winston-Salem.—Batteries.—Jarvis Storage Battery Co., G. C. and L. J. Jarvis, Proprs.; will mfre. storage batteries.

Tenn., Nashville.—Overalls.—O'Bryan Brothers, T. P. Kennedy, increases capital from \$200,000 to \$300,000.

Tex., Lufkin.—Hair Tonic.—Kesside Co., of Lufkin, capital \$150,000; inceptd. by J. E. Kesside, P. D. Miller; will erect plant to mfre. hair tonic.

Va., Danville.—Tobacco.—Piedmont Tobacco Co., increases capital from \$500,000 to \$700,000.

Va., Roanoke.—Optical Goods.—Dr. Henry Martin, capital \$10,000; inceptd. with Dr. Henry Martin, Prest.; Wm. R. Corper, Secy.

Va., St. Paul.—Bakery.—Wisard Bakery, capital \$10,000; inceptd. with G. L. Pugh, Prest.; J. L. Jennings, Secy.

W. Va., Fairmont.—Monongah Glass Co., R. T. Cunningham, Secy.-Treas., let contract to Link Belt Co., 329 W. 39th, Chicago, Ill., and Hunting Park and P. & R. Ry., Philadelphia, Pa., to install coal handling and conveying equipment, and to Pittsburgh-Des Moines Steel Co., 4th and Ross Sts., Pittsburgh, Pa., to install tower and galleries for elevator and belt conveyors, including 250-ton steel bunker; have purchased producers. (Lately noted.)

W. Va., Lewisburg.—Ice Cream.—Lewisburg Ice Cream Co., increases capital from \$25,000 to \$75,000; contemplates improvements.

Motor Cars, Garages, Tires, Etc.

Ala., Dothan.—Filling Station.—L. B. Hallman let contract to H. H. Brown to erect 36x60-ft. filling station, brick construction, metal, Spanish tile roofing, cement flooring; Garnett J. Dye, Archt.

Ala., Gadsden.—Automobiles.—Cobb Motor Co., L. J. Cobb, Mgr., Court St., let contract to Wm. H. Maytree to construct improvements to front, show rooms and offices. (Lately noted to improve building.)

Ala., Selma.—Garage.—Selma Buick Co. will erect \$35,000 garage; J. W. McKeel, Archt.

Fla., Milton.—Service Station.—E. H. Lundy will erect 20x50-ft. addition to garage building, equip for service station.

Ky., Louisville.—Motors.—Keystone Motors Co., increased capital to \$75,000.

Md., Baltimore.—Garage.—Owen Garage Co., 912 Lovegrove St., capital \$100,000; inceptd. by F. Stanley Porter, Theodore C. Waters, Albin Widow.

Md., Baltimore.—Automobile Parts.—Baltimore Auto & Sales Co., 3 W. Lafayette Ave., capital \$25,000; inceptd. by Arthur D. Benjamin and Elizabeth Samler.

Md., Baltimore.—Automobiles.—Baltimore Cadillac Co., 1001 N. Eutaw St., capital \$250,000; inceptd. by Eli Frank, C. John Beeuwkes, Reuben Oppenheimer.

Md., Baltimore.—Automobile Accessories.—Clifton Auto Painting & Top Co., 1711 N. Spring St., capital \$100,000; inceptd. by

In writing to the parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Charles R. and C. Merritt Twiley, C. Gordon Seigmund.

Mo., Joplin.—Tires and Tubes.—Duplex Tire & Rubber Co., R. W. Crissey, Mgr., 322 Frisco Bldg., will erect 3 story 300x100-ft. fireproof building; \$175,000; install heavy standard rubber working machy. (See Machinery Wanted—Rubber Working Machinery.)

Mo., Joplin.—Garage.—Duplex Tire & Rubber Co., care New Gates Hotel, plans to erect 100x300-ft. brick and steel building with concrete foundations.

Mo., Richmond Heights.—Garage.—Porter-Holtkamp Motor Corp., Geo. C. Porter, Pres., 11 Sunset Ave., will erect 2-story 60x40-ft. fireproof building; install general repair machy.; John M. Cook, Archt., 422 De Balnear Ave.

Mo., St. Louis.—Garage, etc.—Muriel Real Estate Co., 8321 N. Broadway, let contract for masonry and carpentering work to Arthur Ball, 5914 Lucille St., erect 1 story garage and display room; O. J. Boehmer, Archt., 3500 Palm Ave.

Mo., St. Louis.—Automobile Trailers.—Lippman Kamprite Trailer Co., capital \$10,000; inceptd. by William A. Lucetta F. and Charles F. Lippman; mfrs. automobile camping and commercial trailers.

Mo., St. Louis.—Automobile Repairs.—H. & H. Machine Co., Charles A. Marien, V.-P., 4374 Easton Ave., increased capital from \$15,000 to \$36,000.

Mo., St. Louis.—Garage.—St. Charles Garage Co., inceptd. by T. S. Kirkpatrick, Roy T. Langenberger, George B. Logan; will erect fireproof garage.

N. C., Raleigh.—Garage.—Standard Motor Co., will erect 1 story 70x120-ft. garage; J. A. Salter, Archt., Commercial Bank Bldg.

N. C., Raleigh.—H. & E. Motor Co., capital \$25,000; inceptd. by B. G. and A. A. Aronson, A. H. Brown.

Oklahoma, Muskogee.—Battery Service.—Battery Service Co., organized with J. H. Schmidt, Prest.—Mgr.; W. H. Stuere, V.-P.; H. K. Herbert, Secy.-Treas., will erect 1 story 169x110-ft. building of brick and steel construction; \$30,000.

Oklahoma, Tulsa.—Service Station.—Red Arrow Petroleum Co., 211 Robinson Bldg., capital \$50,000; inceptd. by Jas. Bowen, F. C. Moore; will erect gasoline service stations, etc.; costing \$50,000; bids until June 15.

S. C., Columbia.—Battery Station.—Clary Cumming Battery Co., E. M. Cumming, Secy.-Treas., increased capital from \$10,000 to \$26,000.

Tenn., Maryville.—Garage.—W. A. Dunlop will erect 50x100-ft. garage, concrete and brick construction.

Va., Richmond.—Automobiles.—Phelps-Vaughan-Proffitt Motor Co., capital \$50,000; inceptd. by L. R. Phelps, Prest.; Edwin Vaughan, Secy.

W. Va., Charleston.—Motors.—Riley Motor Co., capital \$50,000; inceptd. by E. C. Riley, D. E. Lowe, both Charleston; T. H. Lilly, Hinton, W. Va.

W. Va., Mullen.—Electrical Repair.—Mullen Auto & Electric Repair Co., organized with J. W. Shufflebarger, Prest.; W. J. Beverage, Secy.-Treas.; will erect 40x90-ft. fireproof building; \$3,000; construction by owners. (Lately noted inceptd., capital \$15,000.)

W. Va., Star City.—Garage, etc.—Hill Top Garage & Supply Co., capital \$10,000; inceptd. by William Shay, Edmond Gerard, B. F. Harris.

Road and Street Construction.

Ala., Dadeville.—State Highway Dept., Montgomery, Ala., will grade, drain and sur-

face Alexander-City.—Jackson Gap road, Tallapoosa County; 3.482 mi.; bids until July 6; W. S. Keller, State Highway Engr., Montgomery. Lately noted. (See Machinery Wanted—Road Construction.)

Ala., Gadsden.—Etowah County will construct 10 m.i. graded drained and surfaced road; \$200,000 available; construction by county forces; S. J. Cumming, County Engr.

Ala., Tuscaloosa.—State Highway Dept., Birmingham, Ala., will invite bids on Byler road; sold \$75,000 bonds.

Ark., DeValls Bluff.—Comms. Road Improvement Dist. No. 11 will construct roads; bids until June 14; J. A. Welty, Secy. Board Comms. (See Machinery Wanted—Road Construction.)

Ark., Forrest City.—Road Improvement Dist. No. 5 Comms., St. Francis County, will construct 2 1/2 mi. graded road; bids until June 7; B. C. Friar, Secy., Hughes, Ark.; L. C. Torrence, Engr., Forrest City, Ark.

Ark., Morrillton.—City will pave streets; 3 mi.; sell bonds; J. A. Frisby, Mayor.

Fla., Ocala.—City let contract to Barnes Construction Co., Dunnellon, Fla., for constructing curbing along streets. Address The Mayor.

Fla., Orlando.—Orange County will construct Orlando and Indian City road and others; may vote July 7 on \$2,350,000 bonds. Address County Comms.

Ga., Atlanta.—Fulton County will expend \$1,000,000 during 1921 on road construction; asphalt or concrete paving. Address County Comms.

Ga., Bainbridge.—City let contract to Ludlam Construction Co., at \$75,000 for construction 50,000 sq. yds. concrete pavement. Address The Mayor.

Ga., Calhoun.—Gordon County will sell \$300,000 bonds for road construction; J. D. Keever, Commr. Roads and Revenues.

Ga., Decatur.—DeKalb County will construct 7.45 mi. State Aid road between Snap-finger Creek and DeKalb county line, State Aid Project S-5-8; bids until June 25; L. Y. T. Nash, Commr. Roads and Revenues. (See Machinery Wanted—Road Construction.)

Ky., Covington.—State Highway Coms., Frankfort, Ky., will improve 5 mi. Covington-Falmouth road; State Project No. 62, Section A, Kenton County; bids until June 15; Joe S. Boggs, State Highway Engr., Frankfort. (See Machinery Wanted—Road Construction.)

Ky., Hartford.—State Highway Coms., Frankfort, Ky., will improve 4.4 mi. Hartford-Owensboro road, Ohio County; State Project No. 11, Section A; bids until June 15; Joe S. Boggs, State Highway Engr., Frankfort. (See Machinery Wanted—Road Construction.)

La., Leesville.—Vernon Parish will construct roads; \$225,000 available. Address Parish Police Jailer.

La., Mandeville.—City will improve streets and complete seawall; voted \$32,000 bonds. Address W. E. Van Zant, in charge. (Lately noted to vote.)

La., Shreveport.—City will construct 48,520 sq. yds. brick, asphaltic concrete or bitulithic paving and 6,000 sq. yds. brick paving along car tracks; bids until July 5; H. E. Barnes, City Engr. (See Machinery Wanted—Paving.)

La., Shreveport.—City will pave Texas road, Hart's Island road and Mansfield road; John McW. Ford, Mayor; H. E. Barnes, City Engr.; sold \$160,000 bonds.

Md., Baltimore.—Board of Awards, care City Register, will grade, curb and pave streets listed in Contract No. 190 OA; 21,300 sq. yds. sheet asphalt; 4,000 sq. yds. stone filled sheet asphalt; bids until June 29. (See Machinery Wanted—Paving.)

Md., Belair.—State Roads Coms., 601 Gar-

rett Bldg., Baltimore, will construct 3.04 mi. State Highway along Philadelphia road from Baltimore county line toward Aberdeen; concrete; Hardford County Contract H-26A; bids until June 21. (See Machinery Wanted—Road Construction.)

Md., Cambridge.—State Roads Coms., 601 Garrett Bldg., Baltimore, will construct 2 mi. State Highway from Blackwater river toward Golden Hill; concrete; Dorchester County Contract D-23; bids until June 21. (See Machinery Wanted—Road Construction.)

Md., Elkton.—State Roads Coms., 601 Garrett Bldg., Baltimore, will construct 4.57 mi. State Highway from end of Aiken Ave. at Perryville to Port Deposit; concrete; Cecil County Contract CE-30; bids until June 21. (See Machinery Wanted—Road Construction.)

Md., Salisbury.—State Roads Coms., 601 Garrett Bldg., Baltimore, will construct 1.17 mi. State Highway along Main St. and East Church St., concrete; Wicomico County, Contract WI-17; bids until June 21. (See Machinery Wanted—Road Construction.)

Md., Towson.—State Roads Coms., 601 Garrett Bldg., Baltimore, will construct 1 mi. State Highway along Philadelphia road from Golden Ring toward Harford county line; alternate bids for concrete and asphalt on reconstruction base; Baltimore County, Contract B-42; bids until June 21. (See Machinery Wanted—Road Construction.)

Md., Upper Marlboro.—State Roads Coms., 601 Garrett Bldg., Baltimore, will construct 2 mi. State Highway from Clinton toward Pisca-taway; gravel; Prince George County, Contract P-27; bids until June 21. (See Machinery Wanted—Road Construction.)

Miss., Aberdeen.—Monroe County will sell \$50,000 bonds for road construction in Supvrs. Dist. No. 5; Joe T. Morgan, Clk., Supvrs.

Miss., Fulton.—State Highway Dept., Jackson, Miss., will construct concrete highway in Itawamba County.

Miss., Pontotoc.—State Highway Dept., Jackson, Miss., let contract to Lawrence, Nixon & Phillips, at \$375,000 for concrete highway and concrete bridges, Pontotoc County.

Miss., Tupelo.—State Highway Dept., Jackson, Miss., will construct concrete highway in Lee County.

Mo., Albany.—State Highway Board, Jefferson City, Mo., let contract to Maloney & Whalen, St. Louis, Mo., at \$101,162.99 for grading, constructing culverts and bridges and gravel pavement on 6.26 mi. state road from Albany; Gentry County; A. C. Singley, Div. Engr., St. Joseph, Mo. (Lately noted in viting bids.)

Mo., Centerville.—State Highway Dept., Jefferson City, Mo., plans construction of 13.47 mi. State road from Ellington southward; State Aid Project S 20.44; Reynolds County: \$47,264; A. W. Graham, State Highway Engr., Jefferson City, Mo.

Mo., Fulton.—State Highway Dept., Jefferson City, Mo., plans construction of 1 mi. State road from Anxvassie; Callaway County; Federal Aid Project 136; \$14,456.15; bids until June 18; A. W. Graham, State Highway Engr., Jefferson City. (See Machinery Wanted—Road Construction.)

Mo., Harrisonville.—State Highway Dept., Jefferson City, Mo., plans construction of 2.38 mi. State road from Archie including grading, culverts, etc.; Case County, State Aid Project S 20.62; \$16,300; A. W. Graham, State Highway Engr., Jefferson City.

Mo., Kingston.—State Highway Dept., Jefferson City, Mo., will construct 5.34 mi. State road from Hamilton eastward; State Aid Project S 20.43; \$28,704.10; bids until June 16; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted—Road Construction.)

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City, Mo., let contract to Carnes & Cushing, at \$5,858.86 for grading and constructing culverts on State road through Osage County; .57 mi.; State Aid Project S 20.46; H. D. Griffith, Div. Engr., DeSoto, Mo. (Lately noted inviting bids.)

Mo., Maryville.—State Highway Dept., Jefferson City, Mo., plans constructing 1.71 mi. State road from Maryville northward; State Aid Project S 20.33; \$20,000; A. W. Graham, State Highway Engr., Jefferson City.

Mo., New Madrid.—New Madrid County sold \$250,000 bonds for road construction; will let contracts. Address County Comms.

Mo., Plattsburg.—State Highway Dept., Jefferson City, Mo., plans constructing 2.24 mi. State road Cameron; State Aid Project S 20.56; \$20,000; A. W. Graham, State Highway Engr., Jefferson City.

Mo., St. Louis.—Board Public Service will receive bids until June 21 for improving Oakland Ave. (See Machinery Wanted—Paving.)

Mo., Sedalia.—State Highway Dept., Jefferson City, Mo., let contract to Bertman & Menefee, at \$65,218.80 for constructing 4.76 mi. State Road from Sedalia; Federal Aid Project 122; S. M. Rudder, Div. Engr. (Lately noted inviting bids.)

Mo., Trenton.—State Highway Dept., Jefferson City, Mo., plans constructing .624 mi. State road from Edinburg eastward; State Aid Project 20.53; \$2,809.26; A. W. Graham, State Highway Engr., Jefferson City.

Mo., Union.—State Highway Board, Jefferson City, Mo., let contract to J. P. Sparks, Washington, Mo., at \$10,322.41 for grading and constructing culverts on 2.38 mi. Villa Ridge Cut off; State Aid Project S 20.61; Franklin County; H. D. Griffith, Div. Engr., De Soto, Mo. (Lately noted inviting bids.)

N. C., Charlotte.—State Highway Comsn., Raleigh, N. C., will let contract for constructing 45 mi. Charlotte-to-Statesville by Davidson road.

N. C., Charlotte.—Mecklenburg County will construct roads; \$600,000 available; Thos. Griffith, Chrmn. County Highway Comsn. (Lately noted.)

N. C., Danbury.—State Highway Comsn., Raleigh, N. C., will construct 12 mi. road between Westfield and Clemmons' Ford bridge; will invite bids.

N. C., Smithfield.—Smithfield Township will sell \$15,000 bonds for road construction; J. W. Stephenson, Chrmn.

N. C., Whiteville.—Columbus County will sell \$50,000 bonds for road and bridge construction; W. A. Baldwin, Clk. County Comms.

N. C., Winston-Salem.—North Carolina State Highway Comsn., Greensboro, N. C., will construct 10.57 mi. State highway in Forsyth and Guilford counties; State Aid Project No. 510; bids until June 14; Frank Page, Chrmn., Raleigh. (See Machinery Wanted—Road Construction.)

Okl., Ada.—State Highway Dept., Oklahoma City, Okla., let contract to T. C. Ottinger, Hinton, Okla., at \$78,345.05 for 5 mi. gravel roadway.

Okl., Ada.—Pontotoc County let contract at \$78,345.05 for constructing Ada-Allen road. Address County Comms.

Okl., Tishomingo.—State Highway Dept., Oklahoma City, Okla., let contract to Pharaoh Bros. & Terry for 18 mi. gravel roadway in Johnston County.

Okl., Yale.—City let \$100,000 paving contract. Address The Mayor.

S. C., Allendale.—State Highway Dept., Columbia, S. C., will construct 10 mi. road from Fairfax to Bamberg county line; will invite bids.

S. C., Bishopville.—State Highway Dept.,

Columbia, S. C., will construct road from Bishopville to Kershaw county line; \$60,000; bids until June 24.

S. C., Columbia.—City let contract to Black-Black & Covington, at \$11,620 for paving 7,000 sq. yds. sidewalk; W. S. Tomlinson, City Engr.

S. C., Rock Hill.—City will sell \$300,000 bonds for street improvements; S. Geo. Moore, City Clk. and Treas.

S. C., Saluda.—State Highway Dept., Columbia, S. C., will construct 10 mi. road from Saluda to Greenwood county line; \$40,000; will invite bids.

S. C., Union.—Santuc Township Highway Comsn. will construct 5.33 mi. Woods Ferry road; bids until June 10. J. T. Jeter, Chrmn. (See Machinery Wanted—Road Construction.)

S. C., Walhalla.—Oconee County Highway Comsn. will construct 5.404 mi. Seneca-Westminster road and bridges; 17,053 cu. yds. top soil surfacing; bids until June 14; J. N. Stribling, County Engr. (See Machinery Wanted—Road Construction.)

S. C., York.—State Highway Dept., Columbia, S. C., will construct 11 mi. road from Cherokee county line to Sharon; bids until June 22.

S. C., York.—York County will construct roads in Fort Mill township; voted \$75,000 bonds. Address County Comms.

Tenn., Camden.—Tennessee State Highway Dept., Nashville, let contract to Dunn & Woodall, 237 Trust Co. of Georgia Bldg., Atlanta, Ga., at \$87,821.34 for constructing 9.94 mi. State Highway No. 3, Benton County; Federal Aid Project No. 9; bridges over 20-ft. span; W. P. Moore, Ch. Engr., Nashville. (Lately noted inviting bids.)

Tenn., Bristol.—City plans paving streets. Address City Comms.

Tenn., Charlotte.—Tennessee State Highway Dept., Nashville, let contract to Foster & Creighton Co., Nashville, Tenn., at \$128,820.18 for constructing 9.94 mi. State Highway No. 3 between Cheatham county line and Burns, Dickson County; Federal Aid Project No. 46-B; W. P. Moore, Ch. Engr., Nashville. (Lately noted inviting bids.)

Tenn., Dyersburg.—Tennessee State Highway Dept., Nashville, let contract to Rhodes & Eller, 310 Commercial Club Bldg., Nashville, Tenn., at \$288,513.40 for constructing 8.28 mi. State Highway No. 12 between Dyersburg and Newbern; Dyer County, Federal Aid Project No. 52; W. P. Moore, Ch. Engr., Nashville.

Tenn., Knoxville.—City will improve E. Fifth Ave., E. Clinch Ave., etc.; bids until June 28; John L. Greer, City Recorder. (See Machinery Wanted—Paving.)

Tenn., Madisonville.—Monroe County plans to construct Lee highway consisting of 16 mi. Knoxville - Maryville - Athens road; \$160,000; may vote on \$260,000 bonds. Address County Court.

Tenn., Mountain City.—Tennessee State Highway Dept., Nashville, Tenn., let contract to A. F. Bearden, Sparta, Tenn., at \$137,767.48 for constructing 9.91 mi. State Highway No. 16 between Holston river and Mountain City in Johnson and Sullivan counties; Federal Aid Project No. 11; W. P. Moore, Ch. Engr., Nashville. (Lately noted inviting bids.)

Tenn., Paris.—City will improve streets, schools, street lighting system, etc., will vote June 18 on \$250,000 bonds; J. R. Rison, Jr., Mayor.

Tex., Angleton.—Brazoria County Good Roads Assn. contemplates issuing \$3,000,000 bonds for reconstructing to State Federal standard 225 mi. highway; C. D. Jesup, Prest.

Tex., Angleton.—Brazoria County Road Dist. No. 23 and 24 will expend \$315,000 for constructing 25 mi. highways extending from

Freeport to Bryan mound and from Wintara to Clemens State Farm; let contract to Bryan & Perry, Freeport, Tex., for spreading shell ballast on State Highway No. 36. Address County Comms.

Tex., Blue Ridge.—Collin County will construct 2.86 mi. road in Dist. No. 17; Contract No. 18; bids until June 15; T. O. Murray, County Judge; F. W. Cawthon, County Engr.; both McKinney, Tex. (See Machinery Wanted—Road Construction.)

Tex., Boston.—Bowie County let contract to Smith Bros., Crockett, Tex., at \$210,000 for 18 mi. road from Red Water via Maud to Sulphur river. Address County Court.

Tex., Cleburne.—State Highway Dept., Austin, Tex., approved plans for construction of 12 mi. bituminous macadam road on Highway No. 2 A; Johnson County; \$329,192.25; C. C. Chisman, County Judge; Thos. C. Davis, Asst. County Engr.

Tex., Cleburne.—Johnson County will construct 14.94 mi. gravel road on Fort Worth road, State Highway No. 2; 12.56 mi. bituminous top gravel road on State Highway No. 2-A, between Burleson and Alvarado; 12.05 mi. bituminous top gravel road on State Highway No. 2-A, between Alvarado and Hill County line; bids until June 23; Claude White, County Auditor; Whitaker & Washington, County Engrs. (See Machinery Wanted—Road Construction.)

Tex., Decatur.—Wise County Road Dist. No. 2 will sell \$150,000 bonds for road construction. Address County Comms.

Tex., Edinburg.—Hidalgo County plans construction of 34.3 mi. Highway No. 12 from Edinburg to Brooks county line; \$252,828.84; P. S. Devine, County Engr., Pharr, Tex.

Tex., Eldorado.—Ch. Engr., U. S. Bureau Public Roads, Washington, D. C., approved plans for construction of 4 mi. State Highway No. 4, Schleicher's County; \$56,678; C. A. Womack, County Judge; E. N. Stanley, County Engr.

Tex., Fort Worth.—City authorized paving of College Ave., at \$9,679.89. Address City Comms.

Tex., Frisco.—Collin county will construct 8.97 mi. road; Contract No. 16; bids until June 15; T. O. Murray, County Judge; F. W. Cawthon, County Engr.; both McKinney, Tex. (See Machinery Wanted—Road Construction.)

Tex., Gonzales.—Gonzales County plans construction of 12.04 mi. 15-ft. gravel road on Middlebuster highway No. 29; \$163,188.50; J. C. Romberg, County Judge; J. W. Benjamin, County Engr.

Tex., Harrisburg.—City will pave streets and construct sewer system; voted \$100,000 bonds. Address The Mayor.

Tex., Jefferson.—City let contract to O. L. Crigler Co., Winnisboro, Tex., for 18,000 sq. yds. paving; 6,000 lin. ft. curb and gutter; B. E. Hicks, Mayor.

Tex., Johnson City.—Plans are being prepared for construction of 13.9 mi. Highway No. 20-A, Austin-Fredericksburg road; Blanco County; \$70,611.51; W. M. Martiny, County Judge; W. C. Yeager, County Engr.

Tex., Kingsville.—Ch. Engr., U. S. Bureau Public Roads, Washington, D. C., approved plans for construction of 19.6 mi. 16-ft. gravel bituminous road on Highway No. 12, Kleburg County; \$128,318.73; B. F. Wilson, County Judge; H. C. Porter, County Engr.

Tex., Lufkin.—U. S. Bureau Public Roads, Washington, D. C., approved plans for construction of 7.6 mi. Highway No. 35; Federal Aid Project No. 231, Angelina County; J. F. Robinson, County Judge; Lamar Acker, County Engr., Nacogdoches, Tex. (Lately noted inviting bids.)

Tex., Pecos.—State Highway Dept., Austin,

Tex., approved plans for construction of 9.7 mi. Bankhead highway, Reeves County; \$63,413.77; J. F. Ross, County Judge; A. J. Adecock, County Engr.

Tex., Plano.—Collin County will construct 15.08 mi. road in Plano Dist.; Contract No. 17; bids until June 15; T. O. Murray, County Judge; F. W. Cawthon, County Engr.; both McKinney, Tex. (See Machinery Wanted—Road Construction.)

Tex., Port Lavaca.—Calhoun County plans construction of 11.5 mi. 12-ft. shell surfaced road on Highway No. 29; \$88,000; R. H. Phillips, County Engr., 510 National Bank of Commerce Bldg., San Antonio, Tex.

Tex., Rusk.—Cherokee County let contract to Smith Bros., Crockett, Tex., at \$127,711.11 for 40 mi. gravel roads in Road Dist. No. 3; C. F. Gibson, County Judge; Calvin E. Cocke, County Engr. (Supersedes recent item.)

Tex., San Antonio.—U. S. Bureau Public Roads, Washington, D. C., approved project statement for construction of 2.2 mi. Highway No. 9, Bexar County; \$57,833.05; Federal Aid Project 239; Augustus McCloskey, County Judge; C. E. Hoff, County Engr.

Tex., Waxahachie.—Ellis County let contract to Wear, Thomas & Ratcliff, Rogers, Tex., at \$23,756.66 for grading and constructing drainage structures on 7.18 mi. State Highway No. 14; F. L. Wilson, County Judge; G. G. Edwards, Engr., Ennis, Tex.

Tex., Wharton.—Wharton County will grade Plainview-Danevang, Hurt School House, El Campo-Sandy Creek and Taiton El Campo roads; bids until June 13; J. P. Taylor, County Auditor. (See Machinery Wanted—Road Construction.)

Va., Accomac.—Virginia State Highway Comm., 116 S. Third St., Richmond, Va., will construct 6.50 mi. concrete road on State Road No. 4 between Tasley and Rue, Accomac County; Virginia Project No. 38; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

Va., Bristol.—State Highway Dept., Nashville, Tenn., let contract to Beardon & Scott, Birmingham, Ala., at \$300,000 for 10 mi. road from Mountain City, Tenn., toward Bristol, Va.

Va., Decatur.—Virginia State Highway Comm., 116 S. Third St., Richmond, Va., will construct 7.05 mi. bituminous macadam road on State Road No. 11 between St. Paul and Coeburn, Wise County; Virginia Project No. 94; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

Va., Gate City.—Scott County will grade Hanging Rock, Canton, Findastie and other roads; bids until June 13. Address County Supvrs. (See Machinery Wanted—Road Construction.)

Va., Surry.—Virginia State Highway Comm., 116 S. Third St., Richmond, Va., will construct 12.97 mi. soil road on State Road No. 10 between Cabin Point and Surry, Surry County; Virginia Project No. 116; bids until June 23; G. P. Coleman, State Highway Commr., Richmond. See Machinery Wanted—Road Construction.)

Va., Bluefield.—Bailey Lumber Co. will pave 20,000 sq. yds. driveways; granolithic and granite paving blocks; \$10,000 to \$12,000; construction by force account.

Va., Huntington.—City let contract to Huntington Engineering Co., at \$39,000 for paving Norway Ave. consisting of 1 1/4 mi. tarvia and slag paving; contract to Ray, Bush, Ward & Co., at \$8,479.60 for paving Oney and Oakland Aves.; Mat Miser, Commr. Streets and Sewers. (Lately noted inviting bids.)

Va., Marlinton.—Pocahontas County awarded contract to Joe Carola, Russell, Ky.,

at \$29,579.60 for grading and draining 2.5 mi. Marlinton-Warm Springs turnpike. Address County Court.

Va., Richwood.—City will pave streets; vote on \$27,000 bonds. Address The Mayor.

Sewer Construction.

Ky., Corbin.—City will construct sewerage system in Dist. No. 4; bids until June 28. Address The Mayor. (See Machinery Wanted—Sewers.)

Ky., Danville.—City, W. O. McIntyre, Mayor, let contract to City Engr. to construct Imhoff tank for population of 1,000, and 1-mi. 8 and 10-in. sewers; cost \$16,000; S. F. Crecelius, Civil Engr. (Lately noted.)

Ky., Frankfort.—City, W. S. Rosson, Mayor, plans issuing \$75,000 bonds to construct, extend and improve storm water and sanitary sewers from Kentucky Penitentiary to Glenwood Park, thence to Kentucky river.

Mo., Cameron.—City plans laying 18 to 36-in. sewer pipe; W. F. Null, Engr. Address The Mayor.

Mo., Independence.—City, voted \$130,000 sewer system improvement bonds; install 3 Imhoff treating tanks. Address The Mayor. (Lately noted to vote.)

Okla., McAlester.—City, E. M. Fry, Mgr., voted \$50,000 bonds to improve and extend sewer system. (Lately noted.)

Okla., Oklahoma City.—City, C. F. Semmelbeck, Clk., will construct sewage disposal plant; Pearse, Greeley & Hansen, Constr. Engrs., Chicago, Ill.

S. C., Barnwell.—City, will install sanitary sewers; W. S. Tomlinson, City Engr., Loan Exchange Bank Bldg., Columbia, S. C.; Jas. Julian Bush, Chrmn. Board of Commsrs. of Public Works.

S. C., Laurens.—City, Stanley W. Crews, Clk., contemplates installing sanitary sewers.

Tex., Harrisburg.—City voted \$100,000 bonds to improve sanitary sewers and street paving. Address The Mayor.

Tex., Pittsburgh.—City, Mayor Bass, will construct sewerage disposal plant. (Lately noted voted bonds.)

Tex., Schulenburg.—City contemplates installing \$20,000 sewerage system. Address The Mayor.

Tex., Slaton.—City voted sewer system bonds. Address The Mayor.

Va., Roanoke.—City, W. P. Hunter, Mgr., let contract to Reed & Lapsley at \$58,000 to extend sewer drain on Norfolk Ave.

Va., St. Paul.—City will vote June 14 on \$65,000 bonds to install sewer and water systems; W. A. Bennett, Engr., Rocky Mount, Va.

Telephone Systems.

Tenn., Maryville.—People's Telephone Co., Knoxville, Tenn., purchased People's Telephone Co. will put in additional cables, later contemplates installing new switchboard, lines, etc.

Tex., Fredonia.—Perry Telephone Co., organized with G. C. Perry, Prest.; J. R. Perry, Jr., V.-P. and Mgr., will erect ordinary construction building, install equipment for service station. (Lately noted inceptd.)

Va., Virginia Beach.—Navy Dept., Bureau of Yards and Docks, Washington, D. C., let contract to Newport News Engineering & Construction Co. at \$34,831 to construct two 150-ft. serial masts for wireless station, erect 2 story frame operating house, also barracks building at coast guard station. (Previously noted.)

Textile Mills.

Ga., Griffin.—Bleachery.—Lowell Bleachery, Lowell, Mass., is reported contemplating establishing branch plant.

Mo., Monroe City.—Hosiery.—David Mohner is reported contemplating establishing hosiery mill.

S. C., Bowling Green.—Yarn.—Reynolds Cotton Mills Co., S. A. Sifford, Prest.; improve mill; install machinery; improve mill village.

Tenn., Chattanooga.—Underwear.—Volunteer Knitting Mills, capital \$20,000; incptd. by Mayor A. W. Chambliss, E. B. Thomasson; leased plant of Lookout Knitting Mills; mfrs. boys' knit underwear.

Va., Roanoke.—Artificial Silk.—Viscose Co. C. A. Ernst, Prest., Marcus Hook, Pa., will erect brick and cement building; operate machinery by belt and electric drive; will double present capacity.

Water-Works.

Ala., Gadsden.—City will extend water mains on 10th St. from Walnut to 6th Aves., and on 6th and 7th Aves. from 10th to 11th Sts.; Mr. Polglaze, Supt. Water Dept.

Fla., Clermont.—City, K. E. E. Munson, will install water-works. Address The Mayor. (See Machinery Wanted—Water Meters.)

Fla., Pablo Beach.—J. G. Christopher will improve water-works; construct several thousand feet of water mains; H. Warren Smith, in charge.

Ga., Helen.—Town will issue \$30,000 water-works bonds; W. R. Ault, Town Clk.

Ga., Toccoa.—City, W. A. Hamby, Clk., will expend \$10,000 to repair filters and extend water pipes; C. H. Dance, Mayor. (Lately noted voted bonds.)

Ky., Ashland.—City, W. A. Manning, Clk., will erect filtration plant; Thos. Boggess, City Engr., Ashland; S. Alvord & Burdick, Archts.-Engrs., 8 La Salle St., Chicago, Ill.

Ky., Water Valley.—Water Valley Water & Light Co., capital \$50,000; incptd. by Ben F. Bennett, T. E. Eaker.

La., Baton Rouge.—Brookstown Drive Water Co., capital \$20,000; incptd. with Jno. R. Grand, Prest.; Thos. O. Day, Secy.-Treas.

La., Haynesville.—City let contract to Home Construction Co., 1507 Walnut St., Kansas City, Mo., and Lexington, Ky., at \$50,000 to construct 75,000-gal. elevated water tower, reinforced concrete ground storage reservoir, water supply air lift equipment, fire pumps, etc.; J. W. Billingsley, Constl. Engr., New Orleans. (Lately noted.)

Mo., Barnard.—City contemplates constructing water-works. Address The Mayor.

N. C., Asheville.—Inanda Water Supply Co., capital \$100,000; incptd. by M. H. Kelly, H. B. Stevens.

N. C., New Holland.—N. C. Farms Co., Geo. Mansford, let contract to H. E. Miller, Columbus, O., to construct water lines; Benham & Richards, Consnl. Engrs., 214 E. State St., Columbus, O.

Okla., Sayre.—City plans voting June 14 on \$28,500 bonds to extend water mains, including reservoir pumping equipment; V. V. Long & Co., Engr., 1300 Coleore Bldg., Oklahoma City.

S. C., Barnwell.—City will construct water mains; W. S. Tomlinson, City Engr., Loan Exchange Bank Bldg., Columbia, S. C.; Jas. Julian Bush, Chrmn. Board of Commsrs. of Public Works. (Lately noted to sell \$45,000 bonds.)

Tenn., Pulaski.—Water Committee, W. J. Yancey, Chrmn., let contract to Worthington Pump & Machinery Co., 115 Broadway, New York, at \$10,575, to install crank and fly wheel pumping engine; to International Filter Co., 38 S. Dearborn St., Chicago, Ill., at \$16,300, to install filter equipment; to U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J., at \$6,900, to install cast iron pipe; Lew

Jones, Recorder; Klyce & Kackley, Engrs., 720 Fourth and First National Bank Bldg., Nashville, Tenn. (Lately noted bids until April 27.)

Tex., Amarillo.—City, Lon D. Marrs, Mayor, contemplates installing water system for 50,000 inhabitants; J. N. Riggs, Chrmn. Public Utilities Committee, (Lately noted contemplated improving.)

Tex., Goesbeck.—Chamber of Commerce interested in improving water supply; plans to construct dam across Navasota River.

Tex., Pittsburg.—City, Mayor Bass, will construct concrete settling tank. (Lately noted voted bonds.)

Tex., Slaton.—City voted water-works bonds. Address The Mayor.

Va., Clifton Forge.—City plans voting on \$150,000 water improvement bonds. Address The Mayor.

Va., St. Paul.—City, will vote June 14 on \$65,000 bonds to install water and sewer systems; W. A. Bennett, Engr., Rocky Mount, Va.

Woodworking Plants.

Fla., Brooksville.—Spokes and Handles.—C. M. Emerson & Co., will install additional equipment for mfrs. of spokes and handles.

Fla., Oldsmar.—Chairs.—Vanderbilt Chair Co., organized with W. W. Vanderbilt, Mgr., leased woodworking plant of Reolds Co., later contemplate installing new plant; mfrs. dining and bedroom chairs. (Previously noted to establish plant.)

N. C., Charlotte.—Road.—Mecklenburg County will receive bids until June 18 on \$600,000 of 6 per cent \$1,000 denomination serial road bonds, dated June 1; F. M. Gresham, Clk. (Lately noted.)

Okla., Briartown.—School.—Briartown School Dist. No. 91 voted June 2 on \$14,000 of 6 per cent 20-yr. bonds. Address Board of Education.

S. C., Gaffney.—School.—Trustees School Dist. No. 10 may vote on \$102,000 school bonds. Address Board of Education.

S. C., York.—Road.—York County voted \$75,000 bonds of Fort Mill Township. Address County Comrns.

Tex., Decatur.—Road.—Wise County will sell \$150,000 of 5½ per cent semi-annual 30-yr. bonds of Road Dist. No. 2. Address R. L. Morris, Chico, Tex.

Tex., Highland Park (P. O. Dallas).—Electric.—City sold \$16,000 of 6 per cent 30-yr. electric bonds to W. A. Myrick, Dallas, Tex., at par; H. R. Davis, Mayor. (Lately noted voting.)

Tex., Highland Park (P. O. Dallas).—Street.—City plans \$70,000 additional street bonds; H. R. Davis, Mayor.

Va., Richmond.—Street, Park, Road and School—Committee on Finance will receive bids until June 21 on \$500,000 of 4½ per cent semi-annual street and park road improvement bonds and \$500,000 of 5 per cent semi-annual school bonds, dated July 1, 1921; Barton H. Grundy, Chrmn.

Va., Winchester.—Cooperage.—C. P. Amory & Co., C. P. Amory, Prest., increased capital from \$10,000 to \$50,000.

W. Va., Bluefield.—Window and Door Frames.—Bailey Lumber Co., E. L. Bailey, Prest., will erect 44x106-ft., 3 story plant; construction by force account; install 4 side surfacer, 2 self-feed rip saws, single tenon machine with copes, mortiser and sash sticker; H. M. LeRoy, Archt.; W. T. Owens, Const. Engr. (Lately noted to expend about \$70,000 on plant improvements.)

Fire Damage

Ala., Attalla.—Mack Culvert's residence, occupied by F. M. Reed.

Fla., Pensacola.—Thos. E. Welles' stable at Jackson St. and 12th Ave.

Fla., Seabreeze.—Seabreeze Opera House owned by Lorillard Reynolds; loss \$30,000.

Ala., Roanoke.—G. T. Anglin and A. L. Waller's residences.

Ala., Hartford.—Lee Lammon's store; D. H. Morris' garage; P. M. Metcalf Estate's building occupied by J. H. Smith.

Ala., Hartford.—Hartford Motor Co.'s accessory dept., J. H. Smith's grocery store, City Market; total loss \$50,000.

Ga., Atlanta.—Haverty Furniture Co.'s building at 878 Marietta St., occupied by Georgia Wool Stock Co.

Ga., Columbus.—Z. D. Hunter's residence, at 2948 Twelfth Ave., occupied by Archie L. Skatts; loss \$10,000.

Ga., Macon.—E. R. Parker Motor Co.'s plant; loss \$125,000.

Ga., Marshallville.—Mrs. G. B. Rice's residence; loss, \$10,000.

Ga., Rockmart.—J. M. Cochran's and Brooks & Nichols' warehouses.

Ky., Myers.—Myers Mercantile Co.'s store.

La., Fisher.—Louisiana Long Leaf Lumber Co.'s lumber shed.

La., Oakdale.—H. A. Steed's bakery; loss \$5,000.

La., Longville.—Longville Lumber Co.'s sawmill, steamer and timber dock; loss \$400,000.

Mis., Hattiesburg.—Brookhaven Lumber Co.'s main plant, lumber sheds and dry kilns; loss \$200,000.

Miss., Winchester.—Ingram-Day Co.'s lumber mill.

Mo., Kansas City.—Frank D. Winn's amusement buildings at Winnwood Lake, 5 mi. north of Kansas City; loss \$30,500.

N. C., Plymouth.—Colored Methodist Church. (Address The Pastor.) John Leggett's residence and 3 other dwellings.

Okla., Muskogee.—Oklahoma Producing & Refining Co.'s oil tanks; loss \$10,000.

W. C., Charleston.—Southern Ry. Co.'s pier No 3; J. S. Lemond, Ch. Engr., M. W. & S., Lines East, Charlotte, N. C.

S. C., Columbia.—Prof. O. L. Keith's 2 residences, occupied by Preston Darby and A. M. Withers; loss \$12,000 to \$15,000.

Tex., Ranger.—Commercial Hotel; loss \$80,000. Address The Proprietor.

Tex., Oakwood.—J. W. Barton's residence and Baptist Church. (Address The Pastor), loss \$40,000.

W. Va., Bluefield.—High Grade Filling Station; loss \$50,000.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment-Houses.

Ala., Tuscaloosa.—S. E. Donoghue, Prop., Main Hotel, 4th Street apartment house at N. 7th and C Sts.; 3 stories; 95x120 ft.; 30 apartments, sleeping porches, galleries, etc.; cost \$100,000. C. W. Dawson, Archt.

Fla., Miami.—Gus Wenver will erect \$20,000 apartment house and garage; 2 stories; concrete block and stucco.

Fla., Miami.—Waller Const. Co., will erect \$12,000 building on N. W. 1st Ave., between 2nd and 3rd Sts.; 3 stories; 25x50 ft.; store room on first floor; apartments above.

Fla., Sarasota.—G. Robinson will erect apartment house on Mango Ave.

Fla., St. Petersburg.—Peter Sattler, Jr. and Joseph Schlagheck, Toledo, O., will erect \$28,000 apartment house at St. Petersburg Beach; 2 stories; W. H. Carr, Archt.

Fla., St. Petersburg.—Geo. Sarven will erect 3-story apartment house on 3rd St., north, between 4th and 5th Aves.; brick veneer; 18 suites; W. H. Carr, Archt.

Fla., St. Petersburg.—O. J. Whitaker will erect \$40,000 apartment house at 733 Fifth Ave., north; 3 stories; brick veneer; H. E. Wendell, Archt.

Fla., St. Petersburg.—W. H. Franklin will erect 3-story apartment house at Beach Dr. and 8th Ave. north; 18 suites; vapor heat; elevators; garages.

Fla., Tampa.—J. B. Richardson will erect 2-story brick apartment house at 508 Grand Central Ave.; cost, \$20,000 to \$25,000; 4 suites, 8 rooms each; L. A. Fort, Archt.

Md., Baltimore.—Owners' Realty Co., 2 E. Lexington St., will expend \$10,000 to convert building at 801 Hamilton Ter. into apartment house; 40x160 ft.; tin roof; hardwood floors;

steam heat, \$3,500; Fedk. E. Beall, Archt., 1335 N. Gilmer St.; construction by owner.

Okla., Oklahoma City.—Elmer G. Prall will erect \$80,000 apartment house at 11th St. and Dewey Ave.; 18 suites.

Association and Fraternal

Ala., Birmingham.—Masonic Temple Association will alter and erect additions to Masonic Temple, previously noted; Shrine auditorium to seat 3,500; small auditorium, 750; 3 lodge rooms, banquet rooms, etc.; 3 stories; 2 street fronts, 190 and 175 ft.; Indiana limestone or marble; bids opened June 20; bids on plumbing, heating, ventilating equipment and electric wiring received on or after June 11; Warren & Knight, Empire Bldg., and H. B. Wheelock, Steiner Bldg., Assoc. Archts. (See Machinery Wanted—Elevators; Stage Equipment; Furnishings; Painting and Decorating; Kitchen Equipment; Furniture; Seating.)

Fla., Moore Haven.—Odd Fellows Lodge will erect 2 or 3-story brick building.

Ky., Owensboro.—Knights of Columbus will erect \$35,000 to \$50,000 addition to building at 7th and Fredreica Sts.; A. Killian, Archt.

Tenn., Jackson.—Loyal Order of Moose will expend \$12,000 to remodel building; 50x102 ft.; hardwood pine and concrete floors; built-up roof; steam heat, \$3,000; electric lights, \$600; interior tile; J. F. Parish, Archt., 114 Poplar St. (Lately noted.)

Tex., Melissa.—Masonic Lodge plans to erect \$12,000 building; 2 stories; brick.

Tex., Sweetwater.—Ancient Free and Accepted Masons will erect temple.

Bank and Office.

Ala., Tuscaloosa.—City Natl. Bank, S. F. Clabaugh, Cashr., will receive bids until June 22 to erect \$100,000 building; 40x90 ft.; stone or marble; concrete and marble floors; vapor

In writing to the parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

or steam heat; Wm. Leslie Welton, Archt., American Trust Bldg., Birmingham. (Previously noted.)

Md., Baltimore.—Louis Hurwitz, 248 Equitable Bldg., will erect 4-story office building at 219 Courtland St.; 18x100 ft.; slag roof; wood floors; steam heat; electric lights; metal ceilings; John Freund, Archt., 1307 St. Paul St. (Previously noted.)

N. C., Pinehurst.—Bank of Pinehurst, J. R. McQueen, Prest., will erect 2-story building; cost \$50,000 to \$60,000; 45x64 ft.; fireproof; burglar-proof vault.

N. C., Winston-Salem.—B. F. Huntley Furniture Co., will erect \$10,000 office building at Patterson Ave. and 12th St.; brick; 2 stories; 52x36 ft.; day labor.

W. Va., Bluefield.—Capt. E. L. Bailey will erect 4-story brick building; foundation to erect 4 additional stories later; garage on first floor; offices above.

Churches.

Fla., Winter Garden.—Rev. C. W. Duke, Pastor First Baptist Church, Tampa, and Rev. D. J. Blocker, Dean of John B. Stetson University, DeLand, are interested in erection of \$100,000 church building.

Md., Baltimore.—First United Presbyterian Church will erect \$30,000 building at 30th St. and Hugo Ave.; 1 story; brick; 50x150 ft. Address The Pastor.

Mo., Bolivar.—Methodist Episcopal Church, Rev. H. H. St. Louis, Pastor, will erect \$30,000 building; pressed brick and cut stone; Elston, Axon & Russell, Archts., Springfield.

Mo., Springfield.—Calvary Presbyterian Church will erect \$15,000 Sunday school building. Address The Pastor.

Tenn., Jellico.—Methodist Episcopal Church will erect \$50,000 building; T. W. Pattison, Engr., Knoxville.

Tenn., Paris.—Catholic Church will erect \$10,000 building on W. Wood St.; Reagan & Willson, Archts., Memphis.

Tex., Fort Worth.—Weatherford Street Methodist Church will erect \$75,000 building at Weatherford and Pecan Sts.; auditorium to seat 850, Sunday school rooms, gymnasium, swimming pool, etc.; W. C. Meador, Archt.

Tex., Fort Worth.—St. Paul's Methodist Church, W. M. Short, Chrmn. Bldg., Comm., will erect \$70,000 building at 10th and Burnett Sts.; auditorium to seat 500; gymnasium, roof garden, etc.

Tex., Lufkin.—First Baptist Church plans to erect \$75,000 building; brick. Address Building Comm.

Tex., Melissa.—First Baptist Church plans to erect \$10,000 building. Address The Pastor.

Tex., San Antonio.—Government Hill M. E. Church, South, will erect \$45,000 building at Pine and Grayson Sts., for Fort Sam Houston Methodist Church; Ralph H. Cameron, Archt. (Previously noted.)

Tex., Texarkana.—Second Baptist Church, J. E. Segers, Chrmn. Bldg. Comm., will erect \$20,000 building at 21st and Hazel Sts.

W. Va., Charleston.—Baptist Temple, Rev. E. LeRoy Dakin, Pastor; T. E. Drape, Chrmn. Comm., will erect \$350,000 building at Morris and Quarrier Sts.; site, 150x250 ft.; auditorium to seat 1,200; Ernest Flagg, Archt., 109 Broad St., New York.

W. Va., Clendenin. Building Comm. of M. E. Church, South, S. H. Robertson, Chrmn., will receive bids until June 27 to erect brick and stone building; cost \$50,000; plans and specifications at office of Mr. Robertson and at Architectural Dept., Church Extension Office of M. E. Church, South, Louisville, Ky.

City and County

Ky., Owensboro.—Home.—City, John C. Calhoun, Mayor, will erect \$25,000 nurses home at city hospital; 36x95 ft.; brick; slate roof; yellow pine floors; steam heat; electric lights; J. W. Whitehead, Archt. (Lately noted.)

La., Leesville.—Jail.—Prest. of Police Jury will receive bids to erect jail; cost \$50,000 to \$65,000.

Md., Baltimore.—Engine House.—Board of Awards, Wm. F. Broening, Prest., will receive bids in duplicate until June 15 at office of Richard Gwinn, City Register, City Hall, for alterations and additions to No. 35 engine company, Brooklyn; drawings and specifications at office of J. F. Crowther, Inspector of Buildings, City Hall.

N. C., Asheville.—Home.—County Commr., Chas. E. Waddell, C. N. Brown, and others, Bldg. Comm., will erect \$25,000 children's home.

N. C., Greensboro.—Home.—Guilford County Board of Commr., W. C. Tucker, Chrmn., will receive bids until June 28 to erect \$100,000 home for aged and infirm; 6 buildings; 1 story; fireproof; tile; stucco effect; tile roofs; composition floors; accommodate 72 inmates in addition to insane wards for 16; Harry Barton, Archt. (Lately noted.)

S. C., Union.—Parish House.—Union County, W. W. Johnson, Judge, will erect parish house; Wm. Danden, Archt.; bids opened June 15.

W. Va., Charleston.—Jail.—Kanawha County Court, Mr. Childress, Prest., will erect jail building.

Courthouses.

Fla., Orlando.—Orange County Commr., will probably call election for July 7 on \$2,500,000 bonds, including \$150,500 for enlarging and improving courthouse.

Dwellings.

Ala., Birmingham.—St. Paul's Catholic Church, Rev. Jas. Coyle, Pastor, will erect \$20,000 rectory on 3rd Ave., north; plans to later erect convent school and improve basement of church building; total cost, \$125,000.

Ark., Camden.—E. W. Murphy purchased lot on Maple St. and plans to erect residence.

D. C., Washington.—I. Zirpel will erect \$10,000 residence at 3908 Jenifer St.

Fla., Cocoanut Grove.—Mrs. Josephine P. Ernest, Ithaca, N. Y., will erect residence.

Fla., Miami.—City Builders Finance Co. will erect \$10,000 residence and garage at 1605 Bay Rd.; 2 stories; stucco and metal lathe; tile roof; interior tile; Spanish design.

Fla., St. Augustine.—J. B. Jones is considering erecting 2 bungalows at Oneida and South Sts.

Fla., St. Augustine.—J. A. Lew will erect 5 6-room dwellings in Nelmar Terrace.

Ky., Owensboro.—E. J. Carpenter will erect brick veneer residence in Waveland.

Ky., Owensboro.—Harry Ray will erect residence on Griffith Ave.

La., New Orleans.—H. Goodman will erect \$12,500 residence at Newcomb Blvd. and St. Charles St.; N. Kohlman, Archt.

Md., Baltimore.—Samuel A. Ver Valen, 3802 Edgerton Rd., will erect \$10,000 residence and garage on St. Paul St.; 2½ stories; frame; 40x36 ft.; slate roof; John R. Forsythe, Archt., 232 St. Paul St.; construction by owner.

Md., Baltimore.—Walter Koch, 2902 Springhill Ave., will erect 11 2-story brick dwellings at Allendale St. and Gwynn's Falls Parkway; cost, \$60,000.

Md., Baltimore.—Frank O. Singer, Jr., Equitable Bldg., will erect 4 2-story brick

dwellings at 2223-29 Presstman St.; cost, \$10,000; 16x48 ft.; slag roofs; furnace heat; W. B. Gerwig, Archt., Equitable Bldg., construction by owner; will also erect 4 2-story dwellings at 2904-10 Loudon Ave.; cost \$10,000. (Lately noted in part.)

Mo., Kansas City.—Kelly Investment Co., 3502 Benton Blvd., will erect 30 dwellings; brick, stone and stucco; cedar shingle and composition roofs; oak floors; hot water and hot air heat; hollow fireproof tile; plaster board; interior tile. (Lately noted.)

Mo., Springfield.—R. E. Lee will erect \$20,000 residence.

Mo., St. Louis.—Sam Koplar will erect 5 bungalows at Kingshighway and Columbia St.; cost \$50,000; 7 rooms; hardwood floors; hot water heat; brick and stone porches; tile roofs.

Okla., Pawhuska.—W. T. Leahy is erecting \$30,000 residence near Pawhuska.

S. C., Charleston.—G. T. Trescott will erect 12 dwellings on Simons St., nr. Rutledge; cost \$12,000.

S. C., Columbia.—E. L. Summersett Co. will erect 7 frame dwellings; cost \$15,000.

Tex., Amarillo.—Post Office.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will receive bids until June 30 to construct mailing shed at post office; drawings and specifications from Custodian of site or office of Suprv. Archt., Washington, D. C.

Tex., Houston.—D. A. Japhet will erect \$12,000 residence on Chenevert St.; 1 story; tile and concrete.

Tex., Houston.—Mrs. W. T. Carter will erect \$40,000 residence on Courtland Ave.; frame and brick; 2 stories; 10 rooms.

Tex., Houston.—C. C. Bell, Jr., will erect 2 5-room cottages on Netherland St.; cost \$10,000.

Tex., San Antonio.—A. J. Ridder will erect residence on Kings Highway, nr. Belknap; 2 stories and basement; concrete foundation; tile roof; hollow tile roof; hot air heat; Ralph H. Cameron, Archt.

Tex., San Antonio.—Meyer Friedman will erect brick residence at Summit Pl. and Belknap; 2 stories and basement; brick; tile roof; oak floors; cement porches and terraces; hot air heat; Ralph H. Cameron, Archt.

Tex., San Antonio.—San Antonio Development Co. will erect 2 dwellings in Conta Vista; Ralph H. Cameron, Archt.

Tex., San Antonio.—Louis Hillje will erect \$15,000 residence; 56x48 ft.; reinforced concrete and frame; Johns-Manville color blend shingle roof; oak and concrete floors; hot air heat, \$500; Beverly W. Spillman, Archt., Alamo Bank Bldg. (Lately noted.)

Va., Danville.—W. Y. Noell is erecting \$30,000 residence on W. Main St.; Webber Const. Co., Contr.

Government and State.

D. C., Washington.—Storehouse.—Constructing Quartermaster, Room 2416 War Trade Bldg., will receive bids in triplicate until June 22 to construct 2-story store house at Walter Reed General Hospital; information from Constructing Quartermaster.

La., Carville.—Rest House, etc.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will receive bids until July 1 to construct rest house, additional covered walks and move chapel building at National Home for Lepers; drawings and specifications from Custodian, U. S. Custom House, New Orleans, or at office of Suprv. Archt., Washington.

N. C., Wilmington.—Post Office.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt.,

June 16, 1921.

MANUFACTURERS RECORD.

107

Washington, D. C., will receive bids until June 29 to remodel (except elevator) post office building; drawings and specifications at office of Custodian and office of Suprv. Archt. (Previously noted.)

N. C., Wilmington.—Postoffice.—H. McL. Green, Postmaster, will receive bids until June 29 to install elevator in postoffice to run from basement to third floor; also receives bids for interior alterations.

W. Va., Clarksburg.—Camp.—State Board of Control, Charleston, Jas. S. Lakin, in charge of construction, will establish "Four-H Camps" near Jackson's Mills for boys' and girls' clubs; erect administration building, mess hall, etc.

Hospitals, Sanitariums, Etc.

Fla., Daytona.—Rotary and Kiwanis Clubs and Chamber of Commerce are promoting organization to erect 50-bed hospital; Drs. Bonhannon, Rawlings and others, Bldg. Comm.

Fla., St. Petersburg.—City Hospital Board, A. R. Welsh, F. E. Cole and Mrs. Mattie Taylor will erect first wing of negro hospital at 22nd St. and 13th Ave., south; cost, \$20,000; ultimate plans provide for 3 wings to cost \$60,000.

Ky., Bardwell.—Drs. T. J. Marshall, W. L. Mosby and G. W. Payne plan to erect hospital.

Ky., Owensboro.—City will erect nurse's home at City Hospital; 35x90 ft.; brick; 20 or more rooms; cost \$20,000; J. W. Whitehead, Archt.

Mo., St. Joseph.—Methodist Episcopal Hospital, 8th and Farson Sts., will complete building; Eckel & Aldrich, Archts.; bids opened June 15.

Okla., Vinita.—Eastern Oklahoma Hospital will erect 3 cottages, \$4,000 each, and ward building, \$15,000; cottages, concrete blocks; shingle roofs; ward building, brick; tile roof; both hardwood and concrete floors; steam heat and electric lights from central plant; ventilators. Address State Board of Public Affairs, Oklahoma City. (Lately noted.)

Tex., Sweetwater.—Dr. M. E. Corbin, Waco, will erect \$50,000 hospital; brick; tile roof; concrete floors; steam heat; safes; vaults; steel sash and trim. (Lately noted.)

Hotels.

Fla., Miami.—Goodman Investment Corp., C. F. Goodman, Prest., plans to erect hotel; 4 stories; 135 rooms; reinforced concrete pilasters and girders; clay tile curtain walls; elevators; store rooms, parlors, lobby, offices, dining room and kitchen on first floor; cost \$200,000; construction by owner, who will let contracts for plumbing, tile work, electric work and heating. (See Machinery Wanted—Building Material: Tile; Brick; Plumbing; Elevators; Plate Glass; Mill Work; Reinforcing Steel; Screen Cloth; Electric Fixtures; Furnishings.)

Fla., Naples.—Chas. Yasiloff will erect hotel.

Fla., St. Petersburg.—J. G. McCrory will erect hotel on Central Ave.; W. J. Carpenter, Archt. (Lately noted.)

Fla., St. Petersburg.—R. H. Bartells will erect 3-story addition to Deermont Hotel, 235 Second Ave.; 46x80 ft.; frame; 20 bed rooms, dining room 46 ft. square; cost \$20,000; W. H. Carr, Archt.

Fla., St. Petersburg.—Fred Scott will erect hotel on Second St.; 45 ft. frontage; 3 stories; 35 rooms with private bath; brick or stucco on hollow tile; W. S. Shull, Archt.

Ga., Macon.—Midland City Hotel Co., R. F. Burden, Prest., will improve Hotel Dempsey; estimated cost \$120,000.

Mo., Kansas City.—Simon E. Rothenberg, 3023 Charlotte St., will erect 2-story brick hotel in Blue Valley manufacturing district,

on 10th St. and Winchester Ave.; 25 rooms; cost \$25,000.

Tex., Jefferson.—Mr. and Mrs. A. G. Schuler will expend \$15,000 to remodel building for hotel; 50x140 ft.; brick and concrete; partitions sheet rock; galvanized iron roof; concrete, tile and hardwood floors; safes; ventilators; steam heat; electric lights; work awarded separately. Address Mrs. A. F. Schuler. (Lately noted.)

Va., Staunton.—A. T. Moore is reported to erect \$500,000 hotel at E. Main and Market Sts.; 150 rooms; cost \$400,000.

Miscellaneous.

Ala., Mobile.—Fair.—Gulf Coast Agricultural & Livestock Fair, Inc., increased capital stock from \$15,000 to \$30,000 and will erect several buildings.

Schools.

Ala., Anniston.—Board of Education will erect addition to Pine Avenue School, including alterations to present furnace heating system and for new steam heating; bids opened June 14; plans and specifications at office Lockwood, Poundstone & Billie, Archts., Caldwell Bldg.; will invite bids to erect high school in about 60 days; lately noted. (See Machinery Wanted—Heating Plant.)

Ala., Pike Road.—Montgomery County Board of Education, A. F. Harmon, Supt., Montgomery, will erect brick addition to school; bids opened June 13; Okel & Cooper, Archts.

Ark., Aluts.—Board of School Directors will erect \$20,000 school building.

Fla., Lakeland.—Polk County School Board, Bartow, will erect ward school on S. Florida Ave., \$60,000; 16-room addition to Lake Weir School, \$80,000; school for colored pupils on North Side, \$30,000; improvements and equipment for other schools, \$30,000; \$200,000 bonds voted; F. H. Trimble, Archt., Hand Bldg., Orlando. (Lately noted.)

Fla., Tampa.—County Board of Education, J. E. Knight, Supt., ordered election July 8 in Special School Tax Dist. No. 21 (Gary) on \$15,000 bonds to enlarge 2-story brick school.

Ga., Atlanta.—Emory University, Asa G. Chandler, Prest. Bd. of Trustees, will erect dormitory, library, museum and gymnasium.

Ga., Augusta.—Board of Education, Lawton B. Evans, Secy., will erect 2 cottages of 4 rooms each at John Milledge School and Woodlawn School; also 5-room addition at Davidson School; Sibert & Robertson, are lowest bidders at \$18,380. (Lately noted.)

Ga., Fitzgerald.—Board of Education will erect auditorium and 6 class rooms at high school, fireproof brick building at First Ward; repair negro schools, etc.; plans vote on \$68,000 bonds.

Ga., Kingsland.—School Board will erect school; \$20,000 bonds voted.

Ga., Turin.—Coweta County Board of Education, Newnan, will erect \$15,000 school; 60x90 ft.; brick and hollow fireproof tile; probably fireproof roof; wood and concrete floors; plaster board; ventilators; Deico or similar lighting; bids opened June 10. (Lately noted.)

Ky., Owensboro.—Board of Education will erect auditorium at Livermore School; A. Killian, Archt.

La., Baton Rouge.—Constitutional Convention allocated \$5,000,000 of severance tax to supplement \$2,500,000 appropriated by Legislature for construction of buildings for Louisiana State University and Agricultural & Mechanical College; State purchased about 2,000 acres of land 2 mi. south of Baton Rouge and will erect steel, concrete and brick fireproof buildings; Jno. M. Parker, Governor.

La., Marthaville.—Natchitoches Parish School Board, C. E. Hooper, Supt., Natchitoches, will receive bids until July 5 to erect auditorium building; plans and specifications at office J. W. Smith, Archt., Monroe, and office Superintendent.

Miss., Merigold.—Merigold Consolidated School Dist. Trustees plan to issue \$10,000 bonds to erect school.

Mo., Bolichow.—Board of Education, F. I. Dunn, Secy., will erect school; 2 stories and basement; 53x73 ft.; brick; stone trim; composition roof; W. E. Schrage, Archt., 809 Huntingdon Rd., Kansas City.

Mo., Springfield.—Kappa Alpha Fraternity, Drury College, plans to erect fraternity house; cost \$10,000.

Mo., Trenton.—Board of Education will erect \$32,500 school; 2 stories and basement; R. H. Sanneman, Archt., Reserve Bank Bldg., Kansas City.

N. C., Bailey.—Bailey School Dist. Trustees will erect teacherage; bonds voted.

N. C., Black Creek.—Black Creek township will vote July 12 on \$60,000 bonds to erect school building; R. T. Barnes, Clerk, Bd. County Comms., Wilson.

N. C., Charlotte.—City School Board plans to erect combination grammar-high school in Elizabeth section.

N. C., Charlotte.—Mecklenburg County School Board, J. M. Matthews, Supt., will call election on \$20,000 bonds to erect school for Long Creek.

N. C., East Spencer.—Board of Aldermen, E. W. Staton, Clerk, plans to issue \$60,000 bonds; \$15,000 for buildings for white pupils; \$15,000 for colored schools; stone, brick and metal wooden floors.

N. C., Elm City.—Elm City Graded School Dist. will vote July 16 on \$75,000 bonds to erect school building; R. T. Barnes, Clerk, Bd. County Comms., Wilson.

N. C., Greensboro.—North Carolina College for Women, J. L. Nelson, Chrmn. Bldg. Coms., will erect 3 dormitories to accommodate 130 students each, complete McIver building, enlarge and rearrange library building, etc.; Harry Barton, Archt.

N. C., Kinston.—Caswell Training School, Dr. C. Banks McNairy, Supt., will erect dining hall, low grade boys' dormitory, cured meat storage building and addition to kitchen building; bids opened June 16; separate bids for heating plant and plumbing; plans and specifications at offices Dr. C. Banks McNairy, Supt., Kinston, and H. A. Underwood, Engr., 1012 Commercial Bank Bldg., Raleigh; obtainable from office of latter. (See Machinery Wanted Heating Plant: Plumbing.)

N. C., Morganton.—School Board, J. A. Claywell, Chrmn., will erect \$80,000 school; 2 stories and basement; 225,000 cu. ft.; fireproof; stucco and hollow fireproof tile; ornamental terra cotta; probably linoleum floors; built-up asbestos roof; steel sash and trim; warm air ventilating and heating, fan system; conduit wiring; bids opened June 29; M. E. Boyer, Jr., Archt., Charlotte. (Lately noted.)

N. C., Raleigh.—Samarcand Manor, Gox. Cameron Morrison, Chrmn. Board of Directors, will erect several cottages, heating plant and dormitory; cost \$165,000.

N. C., Salisbury.—City voted \$500,000 bonds to erect 3 high schools, 15-room addition to Ellis Street school, 7 or 8-room addition Ennes Street school, 3 to 5-room addition to N. Main Street school; 6 to 8-room addition to West Ward School; Mr. Strachen, Mayor. (Lately noted.)

N. C., Smithfield.—Smithfield Graded School Dist. Trustees, F. H. Brooks, Prest., will receive bids until June 29 to erect 2 schools; separate bids for heating plants; drawings and

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specifications at office Mr. Brooks, Smithfield, and office Chas. C. Hook, Archt., Charlotte.

N. C., Southport.—Southport and Smithville townships plan to issue bonds to erect school. Address County Board of Education.

N. C., Spring Hope.—Spring Hope Graded School Dist. voted \$75,000 bonds to improve schools. Address County Board of Education, Nashville.

Oklahoma, Alsuma.—Board of Directors, Consolidated School Dist. No. 2, M. T. Moore, Clerk, Broken Arrow, will erect \$40,000 school; brick and hollow fireproof tile; stone trim; asphalt roof; yellow pine floors; metal ceilings; ventilators; steam heat; contract let in about 3 weeks. Address A. J. Love, Archt., Pawhuska. (Lately noted.)

Oklahoma, Briartown.—School Dist. No. 91 will erect one 2-room and one 3-room addition to school; plans to issue \$14,000 bonds. Address Dist. School Trustees.

S. C., Bishopville.—Lee County School Board, B. W. Segars, Chrmn., Oswego, will erect school in Dist. No. 7; 4 rooms and auditorium; frame; tin roof; pine floors; bids opened June 9; J. L. Johnson, Archt., Sumter.

S. C., Charleston.—Board of Commissioners of Bishop England High School will receive bids until June 21 to erect 3-story brick building at 203 Calhoun St.; plans and specifications at office Benson & Barbot, Archts., 26 Broad St.

S. C., Charleston.—High School Trustees will erect 3-story high school at 149-151 Rutledge Ave.; "U" shape; 152x142 ft.; brick and hollow fireproof tile; interior tile; metal doors; Barrett specification roof; wood and concrete floors; wire glass; ventilators; steel sash and trim; hot water heat; 20 class rooms; cost \$140,000; Benson & Barbot, Archts. (Lately noted.)

S. C., Clover.—Board of Trustees, School Dist. No. 37, J. F. Pursley, Chrmn., will erect 2-story school building; brick; 6 rooms and auditorium; bids opened June 14; Nat. G. Walker, Archt., Rock Hill. (Lately noted.)

S. C., Darlington.—Darlington County School Board, J. F. Blackwell, Chrmn., McBee, will erect school in Clyde Dist. No. 28; 4 rooms and auditorium; frame; tin roof; pine floors; J. L. Johnson, Archt., Sumter.

S. C., Leesville.—Summerland College will erect dormitory to accommodate 100 students; brick and hollow tile; fireproof roof; hardwood and concrete floors; ornamental terra cotta; steam heat; electric lights; bids opened about July 1. Address Scroggs & Ewing, Archts., Augusta, Ga. (Previously noted.)

S. C., Ridgeway.—School Board will erect \$20,000 school.

S. C., Wanamaker.—Pee Dee Baptist Academy will erect \$16,000 building; 6 class rooms and auditorium; brick and frame; asbestos or asphalt shingle roof; yellow pine floors; low pressure steam heat; bids opened about July 1. Address W. D. Harper, Archt., Florence.

Tenn., Chattanooga.—Board of Education will erect 5-room addition to East Side Junior High School; Clarence Jones, Archt. (Lately noted.)

Tenn., McMinnville.—City, J. D. Elkins, Mayor, will erect colored school; 82x90 ft.; 1 story; metal or asphalt shingle roof; hardwood floors; metal ceilings; rolling partitions; electric lights; stoves; day labor. (Lately noted.)

Tex., Booker.—School Board will erect \$30,000 high school; brick and hollow fireproof tile; composition built-up roof; wood block and concrete floors; metal ceilings; vapor heat; electric lights; ventilators; Parker & Rittenberry, Archts., Amarillo.

Tex., Corpus Christi.—School Board, A. A. Lichtenstein, Prest., will erect 4-room brick

addition to Edward Furman School; concrete and brick; built-up felt and asphalt roof; wood and concrete floors; cost \$10,000; bids opened June 10; Guy Dale, Archt., Amusus Bldg. (Lately noted.)

Tex., Denton.—Board of Regents, College of Industrial Arts, will receive bids until June 20 to erect music hall and auditorium; plans and specifications at office Bargebaugh & Whitson, Archts.-Const. Engrs., 1008 Southwestern Life Bldg., Dallas.

Tex., Desdemona.—Board of Education will erect \$75,000 school; bonds voted. (Lately noted.)

Tex., Fredericksburg.—Board of Education will erect school building; \$75,000 bonds voted. (Lately noted.)

Tex., Golden.—Board of Education will erect school building.

Tex., Jericho.—Jericho District School Trustees will erect school building.

Tex., Munday.—School Board will erect \$30,000 school; 25x54 ft.; 2 stories; brick; Barrett specification roof; pine floors; Jacket stoves—Smith system, \$1,000; electric lights; David S. Castle, Archt., Abilene. Address C. L. Mayes, Secy. School Board, Munday. (Lately noted.)

Tex., Perryton.—Perryton School Dist. will erect high school; brick, concrete and hollow fireproof tile; concrete and wood block floors; ornamental terra cotta; interior tile; composition built-up roof; metal ceilings; wire glass; steel sash and trim; ventilators; vapor steam heat, \$10,000; electric lights; cost \$120,000; Parker & Rittenberry, Archts., Amarillo.

Tex., Rock Springs.—School Board will erect 2-story stone addition to school; cost \$18,000; Will N. Noonan, Archt., San Antonio.

Tex., Tahoka.—School Board will erect school building.

Va., Crewe.—Winningham Dist. School Board, S. E. Marks, Chrmn., will complete Crewe High School under construction; bids opened June 15.

Va., Danville.—Danville Military Institute will erect building to contain mess hall, kitchen, store room, laundry and commandant's residence to replace structure lately noted burned; 40x90 ft.; cost \$25,000. Address M. K. Harris, Chrmn. Board of Visitors.

Va., Dublin.—Dublin School Trustees will erect schools at Dublin, Belpoint and several other points; \$50,000 bonds voted.

Va., Norfolk.—School Board, Richard A. Dobie, Div. Supt., Bankers' Trust Bldg., will rebuild John Marshall School recently noted burned; Tunstall & Arrington and Wickham Taylor, Archts. (Lately noted.)

Va., Strasburg.—School Board will erect annex to high school; A. C. Stickley, Trustee.

W. Va., Charleston.—Dr. H. B. Boyd, 1202 Virginia St. and C. A. Cabell, 2104 Kanawha St., will erect business building; 2 or 3 stories and basement; brick and stone; Higginbotham & Knapp, Archts.

W. Va., Cres Creek.—Board of Education, A. F. Young, Follansbee, will erect \$60,000 grade school; 2 stories and basement; fireproof; brick; M. L. Wells, Archt., Wellsbury.

W. Va., Folsom.—Grant District Board of Education, A. R. Fair, Clk., Pine Grove, will erect high school; 2 stories and basement; brick; cost \$100,000; F. F. Faris, Archt., Schmulbach Bldg., Wheeling.

W. Va., Guyandotte (Sta. Huntington).—Guyandotte District Board of Education, J. N. Potts, Secy., will receive bids until June 30 to erect 2-room school, move and remodel present 1-room school at Russell Creek; erect 4-room school, remodel present building at Harveytown; plans and specifications at office

Board of Education, Guyandotte Dist., Huntington; office County Superintendent of Schools, Huntington, and office A. G. Hensley, Archt., Bank Bldg., Milton.

W. Va., Huntington.—Huntington Independent Dist. Board of Education, Clarence L. Wright, Supt., will receive bids to erect South Junior High School; plans and specifications at office Meanor & Handloser, Archts., 917 Robinson-Prichard Bldg. (Lately noted.)

W. Va., Kimball.—Browns Creek Dist. Board of Education, Welch, will erect addition to school; 40x70 ft.; 3 stories; brick; stone trim; wood floors and beams; bids opened June 11; L. J. Hanifan, Supt. of Schools, Welch; Alex B. Mahood, Archt., Bluefield. (Lately noted.)

W. Va., Maidsville.—School Board, Lynn Hastings, Supt. of Schools, Morgantown, will erect \$30,000 grade school; 2 stories and basement; 40x72 ft.; brick; flat tile roof; Elmer Jacobs, Archt., Fleming Bldg., Morgantown.

Stores.

Ark., Pine Bluff.—Nichol Bros. will erect store building on Main St.; 1 story; brick.

D. C., Washington.—Brodt Bros., Inc., will erect \$10,000 store at 509 11th St.

D. C., Washington.—R. Francione will erect store and apartment building at 822 9th St., N. W.; O. Harvey Miller, Archt., McLachlen Bldg., Washington, and Bridgewater, Va.; drawings not complete.

Fla., Kissimmee.—A. J. Jones will erect brick business building on Broadway at Sproule Ave.

Fla., Pompano.—Saxon & Wetherbee will erect brick and tile business building; 30x60 ft.; 1 story.

Fla., Sanford.—Meisch Realty Co. plans to erect several business buildings on First St.

Fla., Sanford.—T. J. Miller & Son will erect business building at Palmetto and Commercial Sts.

Fla., Sebring.—Ed. L. Hainz will erect business building; brick; cost \$60,000.

Fla., Sebring.—Geo. E. Sebring will erect brick block; cost \$60,000.

Fla., St. Petersburg.—Cunningham Bros., 870 Central Ave., will erect building for Harrison Hardware Co.; bids opened June 11; Edgar Ferdinand, Archt., American Bank & Trust Bldg. (Lately noted.)

Fla., St. Petersburg.—Guy Shefield will erect 2-story store and apartment building on Central Ave., west of 9th St.; cost \$25,000; H. E. Wendell, Archt.

Fla., Tampa.—W. D. Harper will erect 2-story brick building.

Ga., Atlanta.—Ben D. Massell will erect brick business building on Peachtree St.

Ga., Athens.—P. O. Wall and associates will erect 75x73 ft. building at Lumpkin and Dougherty Sts. for 4 store rooms.

Ga., Hoboken.—J. M. Jones will erect building for 4 storerooms.

Ky., Owensboro.—Israel Baker, Prop., Liberty Store, 215-17 W. Second St., will erect department store on Second St., between Allen and Davies Sts.; 24x150 ft.; 2 stories; Rugby brick; stone; glass front; J. W. Whitehead, Archt.

Mo., St. Louis.—Meehan Grocery Co., J. Meehan, Prest., 415 Franklin Ave., will erect \$25,000 store at 818 N. Broadway; 2 stories; 30x126 ft.; fireproof; brick; Nolte & Nauman, Archts., Fullerton Bldg. (Lately noted.)

Mo., St. Louis.—Nolte & Nauman, Fullerton Bldg., prepared plans for store and flat building at Union and Harney Aves.; 2 stories; 60x65 ft.; brick; semi-fireproof; cost \$30,000.

N. C., Winston-Salem.—R. C. Church will erect store in West Salem; 1 story; 24x60

ft.; brick; concrete foundation; 2,880 ft. floor space; day labor.

S. C., Simpsonville.—B. W. Burdett building for 4 stores; 2 stories and basement; 95x95 ft.; brick; composition or tar and gravel roof; wood floors on tar concrete base; ornamental terra cotta; metal ceilings; ventilators; steam heat; cost \$30,000; Jones & Trott, Inc., Archts., Jones-Realty Bldg., Greenville; construction by owner. (Lately noted.)

Tenn., Jasper.—J. W. Simpson & Son will erect 2-story brick building.

Tex., Hereford.—Henry Hellman will erect building; 1 story; cement foundation; rubble stone and stucco.

Tex., San Antonio.—Berman & Zadek will erect store at Commerce and N. Presa St.; 1 story; cost \$47,000; Carl V. Seuter, Archt.

Tex., San Antonio.—J. T. Jamison will expand \$15,000 to remodel lower floor of building at Avenue C and Martin St. for automobile supply and accessory store.

Va., Bristol.—Lynn Kaylor Co., E. M. Kaylar, Prest., will expand \$25,000 to remodel store building; 2 stories; brick; C. B. Kearnott, Archt., Bristol, Tenn.

Va., Portsmouth.—A. Berson, 239 Carolina Ave., Norfolk, will erect store and apartment building at Pinners Point; 3 stories; 127x80 ft.; brick; Philip B. Moser, Archt., Law Bldg., Norfolk; H. M. Lucas, Norfolk, is lowest bidder at \$42,918. (Lately noted.)

W. Va., Fairmont.—C. E. and Brooks S. Hutchinson will erect 2-story fireproof build-

ing on Washington St.; 8 stores on first floor; 25 offices above.

Theaters.

Fla., Tampa.—Consolidated Amusements, Inc., organized with \$100,000 capital; J. A. Waterman, Prest.; Y. F. Freeman, V.-P.; Dr. L. A. Bize, Treas.; C. E. Halcomb, Secy.; C. D. Cooley, Mgr.; will erect theater.

Ga., Macon.—J. A. Flournoy will erect \$25,000 motion picture theater on Cherry St.

Va., Strasburg.—Dulke & Linn will erect theater; 60x125 ft.; 2 stories; fireproof; steel ceiling; seating capacity 750.

Warehouses.

Ala., Clanton.—J. A. Maddox will erect potato storage warehouse.

Fla., DeLand.—Clyde Steamship Co. will erect warehouse and office building; brick.

Miss., McHenry.—McHenry Potato Curing Co. will erect curing house; capacity 10,000 bu.

N. C., Kings Mountain.—Victory Ginning Co. will erect cotton warehouse.

Tenn., Fox Bluff.—Maj. J. L. Schley, U. S. Engr., Nashville, will receive bids until June 27 to erect government warehouses at Lock A, near Fox Bluff.

Tex., Houston.—Gardener & Co. will erect 2-story brick warehouse at 2300 Congress Ave.; cost \$28,000.

BUILDING CONTRACTS AWARDED

Apartment-Houses.

Fla., Miami.—T. B. Escott, Gardner and Marion Sts., will erect \$30,000 building, lately noted; 2 stories; 50x60 ft.; 2 stories; 12 apartments; concrete and hollow tile; composition roof; tile, concrete and yellow pine floors; electric lights; metal ceilings; ventilators; steel sash and trim; John H. Sculthorpe, Archt., Tower Bldg.; Walter Jensen, Contr., 227 N. E. 25th St. (See Machinery Wanted—Hoist; Concrete Mixer.)

Fla., Tampa.—A. D. Hegendobler will erect \$15,000 brick apartment house on Tampa Heights; Shields Bros., Contrs.

Tex., Dallas.—J. B. Frey, 3740 Holland Ave., will erect \$25,000 apartment house; 4 suites; brick and stucco; shingle roof; hardwood floors; gas heat; metal ceilings; interior tile; Orlopp & Orlopp, Archts.-Contrs., 1709 Main St. (Lately noted.)

Tex., Fort Worth.—G. Petta, Main and Rosedale Sts., will erect \$12,000 store and apartment building; 50x50 ft.; brick veneer; tar and gravel roof; wood floors; lighting, \$200; R. A. Nicolais, Archt., Fort Worth Natl. Bank Bldg.; Gus Schmidt, Contr. (Lately noted.)

W. Va., Charleston.—J. C. Gunter, 936 Grant St., will erect apartment house at Tennessee Ave. and Wyoming St.; 2 suites; 6 rooms each; brick and hollow tile; W. L. Kieffer, Archt.-Contr. (Lately noted.)

Bank and Office.

Fla., Miami.—T. V. Moore will convert garage on N. E. First St., into office building; 3 stories and basement; reinforced concrete; fireproof; stores on first floor and in basement; 26 offices above; P. J. Davis, Contr.

Fla., Miami.—Central Properties, Inc. will erect 2-story arcade building on N. W. First St., between Miami and First Aves.; 150 ft. front; steel; fireproof; John B. Orr, Contr.

Fla., Miami.—Prudential Finance Corp. will erect \$12,000 building on N. W. First Ave.,

between 2nd and 3rd Sts.; 3 stories; concrete; Waller Const. Co., Contr.

Md., Elkton.—Natl. Bank of Elkton will erect \$50,000 building; 1 story and basement; 46x56 ft.; steel trusses; brick and reinforced concrete; Indiana limestone front; marble; Robt. L. Harris, Archt.; Consolidated Engineering Co., Contrs., both Calvert Bldg., Baltimore.

Churches.

Fla., Jacksonville.—First Church of Christ, Scientist, will erect \$80,000 building on 1st St., between Laura St. and the Boulevard; 84x87 ft.; 1 story and basement; brick and stucco; built-up roof; wood and concrete floors; electric lights; gas steam heat; Marsh & Saxelby, Archts.; W. D. Gerbrich, Contr., 44 U. S. Trust Bldg. (Lately noted.)

Fla., Jacksonville.—Trustees of Snider Memorial M. E. Church, Chas. W. Kinne, Treas., will erect Livingston Memorial M. E. Church at 21st and Main Sts.; cost \$20,000; 80x80 ft.; concrete blocks, granite trim; G. E. Smith, Contr.

Tex., Kenedy.—Christian Church will erect building; bungalow type; seat 250; W. O. Bullock, Contr. Address The Pastor.

Tex., San Antonio.—Travis Park Methodist Church will expand \$88,000 to remodel building; Ralph H. Cameron, Archt.; Genderman & Allen, Contrs. (Previously noted.)

Va., Norfolk.—Central Baptist Church will erect \$16,000 addition for Sunday school; 2 stories; brick; Barrett specification roof; rift pine floors; Herbert L. Cain, Archt., Richmond; Gooch-Williams & Co., Contrs., Norfolk.

W. Va., Hinton.—Presbyterian Church will erect \$75,000 building; 2 stories; interlocking tile and stucco; concrete foundation; tile and composition roof; tile floors; marble trim; ornamental plaster; King Lumber Co., Contr., Charlottesville, Va.

City and County

Tex., Graham.—Jail.—Young County Comr. Court will erect \$45,000 jail building; 3 stories; reinforced concrete; W. H. Reeves, County Judge; contract let. (Lately noted.)

Va., Roanoke.—Market Building.—City, W. P. Hunter, City Mgr., will erect market building and auditorium; cost, \$111,000; 90x175 ft.; brick, steel and frame; tin and composition roof; cement and wood floors; vapor steam heat; hollow fireproof tile; metal ceilings; metal doors; steel sash and trim; E. G. Frye, Archt., 622 MacBain Bldg.; J. P. Pettyjohn & Co., Contrs., Lynchburg. (Lately noted.)

W. Va., Princeton.—Jail.—Mercer County, Lowery G. Bowling, Clk., will erect addition to jail; Wysong, Tufts & Jones, Archts.; Beck-with-White Co., Contrs., at \$11,755; Roanoke Iron & Bridge Works, Contrs., for steel floor plates and iron and steel cells, at \$9,575. (Lately noted.)

Dwellings.

Fla., Seabreeze.—J. B. Kahn will erect \$12,000 residence; 2 stories and basement; cement blocks, frame and stucco; Spanish tile roof; pine floors; hot air heat; electric lights; Fuquay & Gheen, Archts.-Contrs., Daytona Beach. (Lately noted under Daytona.)

Fla., Tampa.—Dr. W. C. Richardson will erect \$10,000 residence at S. Rome St. and Bayshore Blvd.; 2 stories; frame; Dutch colonial design; L. A. Fort, Archt.; Decker & Youngblood, Contrs.

Ga., Augusta.—H. T. Bridges, 1840 Walton Way, will erect \$16,000 residence; 2 stories; 34x72 ft.; 11 rooms; frame, brick foundation; tile roof; hardwood and concrete floors; Willis Irvin, Archt.; Howell Const. Co., Contr. (Lately noted.)

La., New Orleans.—Mary J. Florit will erect \$10,000 residence at Cadiz and S. Franklin Sts.; 2 stories; frame; Rodrique & Picheloup, Contrs.

N. C., Pinehurst.—Dr. M. W. Marr will erect \$25,000 residence; A. B. Sally, Contr.

N. C., Winston-Salem.—Fogle Bros. have contract to erect residence on Academy Ave.

Tenn., Chattanooga.—H. Pechman will erect 8 1-story frame dwellings on Corey St., between Kirby and Anderson Aves.; cost \$32,000; Haddock & Haddock, Contrs. (Lately noted.)

Tex., Fort Worth.—Pete Jenkins will erect \$11,000 residence; 32x60 ft.; stone and hollow tile; crushed tile roof; oak and tile floors; gas heat; R. A. Nicolais, Archt.; Chas. Geering, Contr. (Lately noted.)

Tex., Fort Worth.—A. J. Anderson will erect \$11,000 residence; 35x60 ft.; brick veneer; tile roof; oak and tile floors; heating, \$1,000; DeLoe lights, \$500; R. A. Nicolais, Archt.; Alexander Lumber Co., Contr. (Lately noted.)

Va., Norfolk.—Kaplan & Koener will erect 5 dwellings on 48th St.; cost, \$15,000; Glick & Goldberg, Contrs.

Va., Portsmouth.—John E. Barclay will erect 4 bungalows in Lafayette Annex; cost, \$12,000; construction by owner; will also erect 2 bungalows for H. F. Johnson and J. H. Saunders; cost, \$5,800.

Government and State

Miss., Laurel.—State Bond Improvement Coms., Theo. C. Link, Suprv. Archt. Director Public Works, P. O. Box 636, Jackson, will erect nurses home at South Mississippi Hospital; Hancock & McArthur, Meridian, contrs. at \$32,902. (Lately noted.)

Mo., Nevada.—Hawkins & Moener, Springfield, prepared plans for \$15,000 building at State Hospital No. 3 for contagious diseases; C. A. Dieter, Contr., Joplin. (Previously noted.)

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Hospitals, Sanitariums, Etc.

Tex., Corpus Christi.—Hospital.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will repair Public Health Service Hospital; cost, \$20,000; E. A. Hamon, Contr. (Lately noted.)

Hotels.

Fla., Miami.—E. R. Waddell will erect 3-story hotel at N. Main Ave. and Second St.; fireproof; 88x75 ft.; 37 rooms with private or connecting baths; 6 stores on first floor; ornamental marquise; cost \$50,000; August Geiger, Archt.; Wm. Witcher, Supt. of Construction.

Tex., Mexia.—Mexia Hotel Co. will erect Halson Hotel; 6 stories and basement; fireproof; steel frame; ornamental terra cotta; metal ceilings; interior tile; concrete floors; steel sash and trim; metal doors; wire glass; safes; mail chutes; 2 elevators; 150 rooms; Hubbell & Green, Dallas, and Young & Young, Mexia, Archts.; Lang & Witchell, Consult. Archts., Dallas; J. S. Harrison Construction Co., Contr., Dallas and Waco. (Lately noted.)

Miscellaneous.

D. C., Washington.—Fred W. MacKenzie, 499 C St., N. W., will erect \$30,000 building for stable and garage; 60x130 ft.; brick and concrete; slag roof; concrete floors; metal doors; plaster board; wire glass; steel sash and trim; hot water heat; electric lights; Andrew Murray, Contr., 712 12th St., N. W. (Previously noted.)

D. C., Washington.—Club.—City Club, E. C. Graham, Prest., will erect \$350,000 club at 1624 I St., N. W.; 112x115 ft.; brick; stone and reinforced concrete; slag roof; cement floors; 1 freight and 2 passenger elevators; F. B. Pyle, Archt., Evans Bldg.; S. J. Prescott Co., Inc., Contr., 814 13th St., N. W. (Previously noted.)

Schools.

Ala., Dothan.—Board of Education will erect school in Ward 2; 1 story; 14 class rooms, principal's office and library; C. Frank Galliher, Archt.; H. H. Brown, Contr.; W. F. Martin, plumbing and electric wiring. (Lately noted.)

Ala., Dothan.—City Board of Education will erect school building; 12 class rooms, principal's office, laboratory and auditorium; brick and stucco; asphalt shingle roof; hardwood floors; cost \$56,000; heating, lighting and plumbing, \$10,500; C. Frank Galliher, Archt., Montgomery; H. H. Brown, Contr.; W. F. Martin, heating contract, both Dothan. (Lately noted.)

Ala., Georgiana.—Board of Education, T. L. Rose, Chrmn., will erect school to replace structure lately noted burned at loss of \$25,000; Geo. Bodiford, Greenville, in charge of construction work. (Lately noted.)

Fla., Century.—Trustees, Special School Tax Dist. No. 8 will erect 5-room structure to be used as annex to present school; Alger Sullivan Lumber Co., Contr.

Fla., Tampa.—County Board of Public Instruction, J. E. Knight, Supt., will erect school at Ybor City; also addition to Hyde Park building; McGuken & McGuken, contractors for both structures at \$73,700 and \$41,410 respectively. (Lately noted.)

Fla., Ybor City.—County Board of Public Instruction, J. E. Knight, Supt., Tampa, let contract to erect school building. (See Fla., Tampa.)

Miss., Alcorn. State Bond Improvement Commission, Jackson, will erect boys' dormitory at Alcorn Agricultural and Mechanical College; Theo. C. Link, Supervising Archt., Director Public Works, P. O. Box 636, Jack-

son; Estes, Williams & Ragsdale, Memphis, Tenn., Contrs., at \$39,788. (Lately noted.)

Miss., Hattiesburg.—State Bond Improvement Commission, Jackson, will erect academic building at Mississippi State Normal College; Theo. C. Link, Supervising Archt., Director Public Works, P. O. Box 636, Jackson; Eure Constr. Co., Hattiesburg, Contr. at \$106,000; A. Dallan O'Brien, New Orleans, contract for steam heating tunnels; Claude P. Smith, Hattiesburg, electrical work. (Lately noted.)

Mo., Braymer.—Board of Education, Geo. Risch, Prest., will erect \$45,000 high school; 3 stories; 65x72 ft.; Warren Roberts, Archt., Chillicothe; Robertson & Layton, Contrs., Braymer.

Mo., Concordia.—Board of Education, A. H. Schoede, Secy., will erect auditorium and gymnasium for school; 2 stories and basement; 60x80 ft.; J. H. Felt & Co., Archts., 800 Grand Ave. Temple Bldg., Kansas City; A. C. Taegtmeyer, Contr., Alma, Mo. (Previously noted.)

N. C., Rockingham.—Roberdel, Entwistle and Hannah Pickett mills will erect school building; cost \$40,000 to \$50,000; 8 rooms and auditorium; steam heat; T. C. Thompson & Bros., Contrs., Charlotte; plumbing, heating and electric wiring not in contract. (Lately noted.)

N. C., Rockingham.—Steele's Mills will erect school building; about 8 rooms and auditorium; cost \$40,000 to \$50,000; T. C. Thompson & Bros., Contrs., Charlotte. (Previously noted.)

Okl., Stone Bluff.—School Board will erect \$15,898 building; 1 story; brick; Henry Vaurier, Archt., Muskogee; Daugherty-Nichols Construction Co., Contr., Muskogee.

Okl., Welch.—Welch School Dist. Trustees will erect \$20,000 school; brick; Joseph Wheat, Contr., Vinita. (Previously noted.)

S. C., Camden.—Camden School District Trustees, T. J. Kirkland, Chrmn., will erect high school; 166x120 ft.; brick; reinforced concrete stairs; wood floors; metal doors; steam heat, direct radiation; 15 class rooms; auditorium to seat 750; Chas. C. Wilson, Archt., Columbia; Brown-Harry Co., Gastonia, N. C., contr. at \$104,994; J. L. Powells, Benettsville, heating and plumbing. (Lately noted.)

S. C., Furman.—Furman University, Dr. W. J. McGlothlin, Prest., will erect refectory building to include dining room and kitchen; tapestry brick, steel and concrete; cost \$100,000; J. E. Sirrine & Co., Archts.; J. F. Gallivan Building Co., Contr.

Tex., Somerville.—School Board will erect brick annex to school building; contract let.

Va., Lynchburg.—City School Board will erect elementary school in Riverton; 3 stories; 104x40 ft.; 12 rooms; brick; cost \$123,000; Stanhope S. Johnson, Archt., Peoples Bank Bldg.; W. T. Jones, Contr. (Lately noted.)

Va., Norfolk.—School Board, Richard A. Dobie, Div. Supt., Bankers' Trust Bldg., will erect 12-room and auditorium annex for James Madison School; auditorium to seat 1,000; Neff & Thompson, Archts., Seaboard Bank Bldg.; Baker & Brinkley, Contrs., at \$102,420. (Lately noted.)

W. Va., Morgantown.—St. Francis Convent, Rev. Father Peter Flint, will erect convent; 2 stories and basement; 32x64 ft.; brick; tile walls; stone trim; Albert Breternitz, Archt., Fordyce Bldg., Clarksburg; A. Dinaldo, Contr., Clarksburg. (Lately noted.)

W. Va., Sand Fork.—Glenville School Dist., J. A. Radcliffe, Prest., Linn, will erect \$65,000 high school; 2 stories and basement; 68x72 ft.; A. N. & R. R. West, Archts., Glenville; West & Garrett, Contrs., Glenville. (Lately noted.)

Stores

Fla., Moore Haven.—J. M. Gross will erect brick building to replace structure recently burned; 1 story; 50 ft. frontage; contract let.

Fla., Moore Haven.—V. Gramm has contract to erect brick block; 100x150 ft.

Fla., St. Petersburg.—H. R. Binnie will erect store and apartment building; 40x50 ft.; 3 stories; brick; slag roof; yellow pine floors; W. H. Carr, Archt.; Chas. DuBois, Contr. (Lately noted.)

Ga., Columbus.—Dan Odom will erect building for stores, apartments and garage; 77x65 ft.; 2 stories; brick; Barrett specification roof; pine and concrete floors; plaster board; wire glass; ventilators; steel sash and trim; F. Roy Duncan, Archt.; C. E. Cooper, plumbing contract; Georgia Electric & Constr. Co., electric wiring; Owen McArdle, roofing. Address L. Minden, Gen. Contr. (Lately noted.)

Miss., Cleveland.—C. R. Smith will rebuild 5 stores recently burned; fireproof walls; C. E. Suttle, Archt.-Contr.

Mo., Pierce City.—Board of Education, H. G. Shoemaker, Secy., will erect \$35,000 high school to replace structure lately noted burned; 2 stories; 65x70 ft.; Niel C. Davis, Archt., Central Natl. Bank Bldg., St. Louis; B. O. Short, Contr., Pierce City. (Lately noted.)

Mo., St. Louis.—Edw. Lueke will erect \$15,000 store and flat building; 2 stories; 32x50 ft.; Rhodes & Cook, Contr., 5868 Delmar St.

Tenn., Bristol.—Turner Drug Co., Dr. W. Turner, Prop., will erect building on State St.; 2 stories; 30x100 ft.; Henri Doriot, Archt., Ritchie Bldg.; K. F. Day, Contr., 616 1st Ave.

Tex., Mexia.—Cheeves Bros. & Co. will erect store; 50x115 ft.; 1 story and basement; brick and concrete; Johns-Manville roof; edge grain pine floors; basement concrete; metal ceilings; electric lights; cost \$20,400; Jesse Denning, Archt.; Denning-Ingram Co., Contr. (Lately noted.)

Va., Portsmouth.—J. F. Wright will erect \$20,000 building for 6 stores; 1 story; 130x60 ft.; Wickham Taylor, Archt., Citizens Bank Bldg.; E. C. Ford, 113 6th St., both Norfolk. (Lately noted.)

W. Va., Huntington.—Lahan & Diehl will erect \$30,000 store building on 10th St.; 1 story and basement; 37x100 ft.; W. B. Smith, Archt., R. & P. Bldg.; C. W. McNulty, Contr.

W. Va., Morgantown.—Theo. Delades, Jno. and Theo. Batian will erect store and apartment building; 4 stories and basement; 35x60 ft.; brick; wood floors; cost \$75,000; Carl Reger, Archt.; Cole Bros., Contrs.

Warehouses.

Mo., St. Louis.—Geitz Sewing Machine & Furniture Co., G. Geitz, Prest., 1315 Market St., will alter and erect addition to warehouse; 3 stories; 50x50 ft.; brick; cost \$50,000; Wedemeyer & Nelson, Archts., Wainwright Bldg.; H. Kissell, Contr., 2142 E. College Ave. (Lately noted.)

Okl., Pauls Valley.—International Cotton Protecting Co., 14 E. Jackson Blvd., Chicago, will erect warehouses at Pauls Valley and Shawnee, Okla., Texarkana and Temple, Tex.; capacity 5,000 bales; contracts let.

Okl., Shawnee.—International Cotton Protecting Co., 14 E. Jackson Blvd., Chicago, will erect warehouse. (See Okla., Pauls Valley.)

Tex., Temple.—International Cotton Protecting Co., 14 E. Jackson Blvd., Chicago, will erect warehouse. (See Okla., Pauls Valley.)

Tex., Texarkana.—International Cotton Protecting Co., 14 E. Jackson Blvd., Chicago, will erect warehouse. (See Okla., Pauls Valley.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Bands (Kiln).—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Kiln bands for brick plant.

Bar Bender.—W. M. Padgett & Co., Rock Hill, S. C.—Prices on bar bender to bend 1½ in. square bars.

Belts.—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Belts for brick plant.

Boiler.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on 50-H. P. boiler.

Boilers.—Treasury Dept., Supvg. Archt's office, Washington, D. C.—Bids until June 22; 2 portable down draft fire box heating boilers, etc., in United States Marine Hospital, Louisville, Ky.; plans on file or with Custodian at Louisville.

Bottles.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on bottles for citrus fruit products.

Bottling Machinery.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on bottling machinery for citrus fruit products.

Brick.—Goodman Investment Corp., P. O. Box 706, Miami, Fla.—See Building Material.

Brick (Fire).—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Fire brick.

Bricks.—Baptist & Goode, Boydton, Va.—Information and prices on mfrs. of clay and cement building bricks.

Bridge Construction.—State Highway Dept., Jefferson City, Mo.—Bids until June 18 to build two 75-ft. pony truss spans, concrete floor, 2 reinforced concrete abutments and reinforced concrete pier; \$18,238.90; Federal Aid Project 136, Callaway County; A. W. Graham, State Highway Engr., Jefferson City.

Bridge Construction.—Muskegee County Comms., Muskogee, Okla.—Bids about July 15 to build 1,700-ft., 1,300-ft. and 800-ft. bridges; steel super-structures on concrete piers and abutments; \$1,000,000; specifications from State Engr., Oklahoma City, Okla.

Bridge Construction.—Lawrence County Highway Comsn., Lawrenceburg, Tenn.—Bids until June 22 to build steel bridge over Shoal Creek on Loretto and West Point road; 465 ft. long between abutments embracing two main spans 140 to 150-ft. each; 2 reinforced concrete abutments and concrete piers about 30-ft. high; specifications, etc., with County Judge; L. H. Gass, County Engr.

Bridge Construction.—Oconee County Highway Comsn., Walhalla, S. C.—Bids until June 14 to build reinforced concrete bridge of three 20-ft. spans and reinforced concrete bridge of four 20-ft. spans with 120-ft. steel superstructure; plans, etc., with J. N. Stribling, County Engr., Walhalla, and State Highway Engr., Columbia, S. C.

Bridge Construction.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until June 23 to build steel bridge over James river between Amherst and Bedford counties on State Road No. 14; Va. Project No. 48-D; plans, etc., on file and with C. L. Scott, Lynchburg, Va.

Bridge Construction.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until June 23 to build reinforced concrete bridge over Nibbs Creek, Amelia County; Virginia Project No. S-47; State Road No. 20; plans, etc., on file.

Building Materials.—Guyan Machine Shops, Logan, W. Va.—Building material including cement; hollow tile; reinforcing floor steel; steel sash.

Building Material.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on building material for 135-room hotel including clay tile, clay brick,

floor tile, plate glass, sash, doors, reinforcing steel.

Butter Machinery.—L. B. Dean, Secy. Chamber of Commerce, Alexander City, Ala.—Machinery to make butter from cream.

Cabinet Machine.—Lufkin Home Building Co., A. D. Walker, V.-P.-Gen. Mgr., Lufkin, Tex.—See Wood Working Machine.

Cars (Mail and Baggage).—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—2 steel underframe or equivalent combination mail and baggage cars, 50 to 60 ft. long inside.

Carts (Dump).—Mulligan-Roach Co., North Wilkesboro, N. C.—Lowest prices on 6 contractor's dump carts, standard make, good repair.

Castings (Structural Steel).—U. S. Engr. Office, Wheeling, W. Va.—Bids until July 5 to furnish and deliver structural steel, castings, etc. for bearmats for Dam 13, Ohio river; information on application.

Cement.—See Building Materials.

Chain Making Machinery.—Perfection Furniture Mfg. Co., Cape Girardeau, Mo.—To purchase machine to make porch swing chains, bull dog style chains.

Citrus Products Machinery.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on citrus products machinery for plant with daily output of 400 doz. containers citrus fruit products.

Coal and Coke Handling System.—Constructing Quartermaster, Langley Field, Hampton, Va.—Bids until June 24 to furnish labor and material required to design, install and finish complete coal and coke handling system at hydrogen plant at Langley Field; plans on file.

Compressor (Air).—Carolina Bagging Co., Henderson, N. C.—Second-hand 8x6 or slightly larger, single vertical belt driven air compressor, state price, description and specifications.

Concrete Chutes.—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Prices on concrete chutes, state condition; immediate delivery.

Concrete Mixer.—Walter Jensen, 227 N. E. 25th St., Miami, Fla.—Combination hoist and concrete mixer, medium size, steam or gas.

Containers.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on glass and fibre containers for citrus fruit products.

Crane.—J. O. Steele & Sons, Statesville, N. C.—5 to 10-ton traveling crane, 20 to 30-ft. span, hand or electric, 22-V. A. C.

Crane, etc.—Appalachian Marble Co., Knoxville, Tenn.—Traveling crane with steel runway, 20 to 30-ton capacity, 25 to 30-ton lift, 60 to 80-ft. span, motors to be alternating current, 3 phase, 60 cycle, 220 volt.

Crane.—Chemical Construction Co., Charlotte, N. C.—Second-hand electric traveling crane, 80 ft. span for 2½ yd. bucket, to handle fertilizer materials; state price and description.

Crates.—Mandeville Mills, W. J. Aldridge, Secy., Carrollton, Ga.—Prices on 12x12x15-in. wooden crates, inside measurement.

Cupola Blower.—Manufacturers Selling Agency, Brown-Marx Bldg., Birmingham, Ala.—No. 5 Root positive pressure blower, arranged for belt drive; good condition; state serial number.

Dehydrating Machinery.—Gilbert D. Von Phul, Carondelet Bldg., New Orleans, La.—Names and addresses mfrs. of mech. to dehydrate fruit and vegetables.

Drainage.—Central Drainage Dist. Comms.,

Cleveland, Miss.—Bids until June 21 to construct ditches and canals, total excavation 1,137,305 cu. yds.; reclaim 34,840 acres; plans with W. W. Boone, Engr.

Dry Kilns.—Brookhaven Lumber & Mfg. Co., W. J. Dreyfus, Mgr., Hattiesburg, Miss.—Bids about July 1, dry kilns.

Drums (Iron).—Florida Insecticide Co., Apopka, Fla.—Names and addresses mfrs. of barrel shaped iron drums.

Electric Fixtures.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on electric fixtures for 135-room hotel.

Electrical Material.—Schroeder Electric Co., 119 Ave. C, San Antonio, Tex.—Prices on electrical material.

Elevators.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on elevators for 4-story hotel.

Elevators.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on electric passenger elevators for Masonic Temple, 3 stories.

Elevator (Electric Freight).—Treasury Dept., Supvg. Archt's office, Washington, D. C.—Bids until June 29 to install complete electric freight elevator in U. S. Post Office at Wilmington, N. C.; plans on file.

Elevator (Electric Freight).—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until June 29 to install complete electric freight elevator in U. S. Post Office, Wilmington, N. C.; plans on file.

Engine.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on 25-H. P. engine.

Engine.—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Double drum hoisting engine.

Engine (Fuel Oil).—Sewerage and Water Board, A. G. Moffat, Secy., Sewerage and Water Board Bldg., New Orleans, La.—Bids until June 21 to furnish, deliver and erect 200 H. P. fuel oil engine.

Engines.—City of Sayre, Okla., W. Ben Turner, Chrmn.—100-H. P. semi-Diesel Engine, and 150-H. P. semi-Diesel engine.

Engine.—Norton - Broadway Machinery Co., 236 Broadway, Cincinnati, O.—14x20 or 16x22 self-contained throttling r. h. engine, either with or without 100 H. P. high pressure boiler, good for 100 lbs.; delivery in Indiana.

Engine (Corliss).—Hackley Morrison Co., Richmond, Va.—Comparatively new 80-H. P. Corliss steam engine for immediate delivery; give factory number; must be bargain for cash.

Fire Protection System.—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until July 1; fire protection system in U. S. Public Health Service Hospital No. 26, at Greenville, S. C.; plans on file.

Foundry Material.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until June 21 to deliver phosphor bronze, brass, rubber hose and steel pipe to navy yard, Washington; plans on file.

Furnishings.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on furnishings for 135-room hotel.

Furnishings.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on furnishings for Masonic Temple, including curtains, draperies, rugs and carpets.

Furniture.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on lodge room furniture for Masonic Temple.

Garbage Disposal.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 22; removal and final disposition of

In writing to the parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

all garbage and dead animals produced in city; specifications obtainable from Adolph P. Schuch, Commr. of Street Cleaning, City Hall Annex, 2 Guilford Ave.

Generating Set.—Deland Electric Light, Power & Ice Co., E. L. Hon. Gen. Mgr., Deland, Fla.—400 or 500 K. V. A., 80% power factor; 3 phase, 60 cycle, 2,300 volt A. C. direct connected unit; steam 160 lbs.; will consider both non-condensing and condensing engine with barometric condenser; propositions on 4 valve Corliss and Cross compound outfits.

Generator.—City of Sayre, Okla., W. Ben Turner, Chrmn.—125-K V A generator.

Grading and Cleaning Balloon Field.—Constructing Quartermaster, Aberdeen Proving Ground, Md.—Bids until June 11 to grade and clean balloon field, at Aberdeen, Md.; plans on file.

Grates (Kiln).—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Kiln grates or stokers.

Grouting Machine.—G. W. C. Whiting, Prest., Whiting-Turner Construction Co., Stewart Bldg., Baltimore, Md.—Pneumatic cement grouting machine, used for grouting foundations.

Hampers.—Mandeville Mills, W. J. Aldridge, Secy., Carrollton, Ga.—Prices on standard bushel hampers, 15½ top diam., 9-in. bottom diam., 18¾-in. vertical depth.

Hangers (Shaft).—Guyan Machine Shops, Logan, W. Va.—1-15-16-in. and 2-15-16-in. hangers, roller or ball bearing.

Heating Plant.—Caswell Training School, Dr. C. Banks McNairy, Supt., Kinston, N. C.—Bids until June 16 for installing heating system in dining hall, low grade boys' dormitory and addition to kitchen; plans and specifications at offices, Dr. C. Banks McNairy, Supt., Kinston, and H. A. Underwood, Engr., 1012 Commercial Bank Bldg., Raleigh, N. C.; obtainable from office Wiley & Wilson, Consult. Archts., Lynchburg, Va.

Heating System.—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until June 21 to remove present plant and install low pressure steam heating system in U. S. Post Office and Court House at Little Rock, Ark.; plans on file or with Custodian at Little Rock.

Hoist.—Walter Jensen, 227 N. E. 25th St., Miami, Fla.—Combination hoist and concrete mixer, medium size, steam or gas. (See Concrete Mixer.)

Hollow Tile.—See Building Materials.

Hollow Tile.—D. C. Elphinstone, 498 Continental Bldg., Baltimore, Md.—Dealers prices on 57,000 pieces 8x12x12 load bearing hollow tile, F. O. B. Cumberland, Md.

Keyseating Machine.—Guyan Machine Shops, Logan, W. Va.—Keyseating machine.

Kitchen Equipment.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on kitchen equipment for Masonic Temple.

Knitting (Hosiery) Machinery.—W. E. Norrell, 703 Austell Bldg., Atlanta, Ga.—Names and addresses mfrs. of mchy. for knitting hosiery.

Knitting Machinery.—D. J. Seifert, Mgr. New Bern City Nurseries, New Bern, N. C.—Names and addresses mfrs. of or dealers in knitting mchy. in small quantities; suitable for knitting socks and stockings; Lamb or circular knitting machine preferred.

Labels.—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on labels for citrus fruit products.

Leather (Shoe).—Lorenzo Cloquella Sancho, Carretera Nueva, 153, Mahou, Bulearic Island, Spain.—To represent mfrs. of patent leather or any line pertaining to shoe industry.

Levee Construction.—E. C. King, Secy. of

Town of Freeport, Tex.—Invites bids to enlarge and strengthen existing levee system.

Lumber (Oak).—W. K. Knutson Co., Wichita Falls, Tex.—Oak for mfrs. of refrigerators; prices in car lots to Henryetta, Okla.

Lumber.—Mississippi River Comsn., 1st and 2nd Dist., Custom House, Memphis, Tenn.—Bids until June 22 to furnish and deliver Southern yellow pine lumber; information on application.

Machine Shop Equipment.—Guyan Machine Shops, Logan, W. Va.—Bending roll for plate 1½x18-in.; slitting shear and punch for ½-in. plate.

Metal Stamping.—W. K. Knutson Co., Wichita Falls, Tex.—To contract for stamping chambers and metal work for mfrs. of vacuum refrigerators.

Mill Work.—Goodman Investment Corp., P. O. Box 706, Miami, Fla.—See Building Material.

Mill Supplies.—F. S. Burr, Wilmington, N. C.—Catalogs and prices on mchy. and mill supplies.

Miscellaneous Supplies.—Quartermaster's Dept., Marine Corps, Washington, D. C.—Bids until June 18 to furnish cement, lumber, wall board, galvanized iron, hardware and wire screening; delivery Naval Operating Base, Hampton Roads, Va., packed for oversea shipment; Sch. 547.

Mixer (Concrete).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Two bag, low charger water tank, gasoline mixer, state age and condition.

Motor.—North Carolina Granite Corp., Mt. Airy, N. C.—Moderate speed 5 H. P. motor, 220 volts, D. C. with starter complete; state price, speed, pulley size and delivery.

Motors.—Brookhaven Lumber & Mfg. Co., W. J. Dreyfus, Mgr., Hattiesburg, Miss.—Bids about July 1, electric motors, etc.

Motors.—Gus' Baths, W. E. Keen, Secy. Treas., Palm Beach, Fla.—Prices on 10-H. P. 220-volt, 3-phase motor for alternating current; 3-H. P. 220-volt, 3-phase motor for alternating current.

Paraffin.—Societe Generale Des Cires Francaises, Montlucon, France.—To represent mfrs. of paraffin, etc.

Paving.—City, J. C. Flanagan, Secy.-Treas., Shreveport, La.—Bids until July 5 to construct 48,520 sq. yds. brick, asphaltic concrete or bitulithic paving and 6,000 sq. yds. brick paving along car tracks; specifications, etc., with H. E. Barnes, City Engr.

Paving.—City, John L. Greer, Recorder, Knoxville, Tenn.—Bids until June 28 to improve E. Fifth Ave., E. Clinch Ave., etc., on file with City Engr.

Paving.—Board Public Service, St. Louis, Mo.—Bids until June 21 to improve Oakland Ave.; plans, etc., with Prest. Board Public Service, 300 City Hall.

Paving.—Board of Awards, care City Register, Baltimore, Md.—Bids until June 29 to grade, curb and pave streets listed in Contract No. 190 OA; 21,300 sq. yds. sheet asphalt; 4,000 sq. yds. stone filled sheet asphalt; specifications, etc., with Paving Comsn., 214 E. Lexington St.

Painting and Decorating.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on painting and decorating Masonic Temple.

Painting.—Board of Awards, Wm. F. Broening, Prest., City Hall, Baltimore, Md.—Bids in duplicate until June 22 at office of Richard Gwin, City Register, City Hall, for exterior painting of small buildings at Bay View Hospital; drawings and specifications at office of J. F. Crowther, Inspector of Buildings, City Hall.

Petroleum or Naptha Products, etc.—Riccardo Pistone, Viale Victoria, 16, Milan, Italy.—To represent mfrs. of petroleum or naptha products, including rosin, turpentine, benzine, mineral oil, wax, paraffin, candles, vaseline, chemical products, caustic soda, iodine carbonate, etc., heavy oils and tar products, coal, etc.; C. T. F. Genou or other Italian ports.

Pile Driver.—W. M. Padgett & Co., Rock Hill, S. C.—Prices on small pile driver.

Pipe.—Appalachian Marble Co., Knoxville, Tenn.—5,000 ft. 1-in. pipe.

Pipe.—City of Sayre, Okla., W. Ben Turner, Chrmn.—12-in. vitrified sewer pipe.

Pipe.—H. I. L. Oil Co., L. W. Brophy, Muskogee, Okla.—Casing for 2 oil wells.

Pipe.—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—5,000 ft. 1-in. pipe.

Pipe (Wood Stave).—City of Norfolk, Va., Walter H. Taylor, III, Director of Public Works.—Bids until June 27 to construct 13,000 lin. ft. of 30-in. continuous stave redwood pipe; also furnish and construct 29,000 lin. ft. 36-in. continuous stave redwood pipe in trenches or on supports.

Piping, etc.—Treasury Dept., Supvg. Archt's office, Washington, D. C.—Bids until June 30; refrigeration piping, etc., in Hygienic Laboratory, U. S. Public Health Service, Washington, D. C.; plans on file.

Planing Mill Machinery.—Brookhaven Lumber & Mfg. Co., W. J. Dreyfus, Mgr., Hattiesburg, Miss.—Bids about July 1, planing mill mchy.

Plate Glass.—Goodman Investment Corp., P. O. Box 706, Miami, Fla.—See Building Material.

Plumbing.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on plumbing fixtures for 135-room hotel.

Plumbing.—Caswell Training School, Dr. C. Banks McNairy, Supt., Kinston, N. C.—Bids until June 16 for installing plumbing in dining hall, low grade boys' dormitory, addition to kitchen and cured meat storage building; plans and specifications at office Dr. C. Banks McNairy, Supt., Kinston, and H. A. Underwood, Engr., 1012 Commercial Bank Bldg., Raleigh, N. C.; obtainable from latter.

Porcelain Knob Machinery.—F. Roger Miller, Gen. Secy., Macon Chamber of Commerce, Macon, Ga.—Names and addresses mfrs. of mchy. to make porcelain knobs for electrical work.

Pump.—Norton-Broadway Machinery Co., 236 Broadway, Cincinnati, O.—Hydraulic pump, capacity about 600 gal. per min., 800 lbs. pressure; immediate delivery.

Pumps.—Board of Awards, W. F. Broening, Prest., Baltimore.—Bids until June 22 to furnish 2 gasoline engine driven centrifugal fire pumps with electric starters, 1,400-gal. capacity, each 150 lbs. pressure at the pumps, complete for service with underwriters equipment; plans with P. W. Wilkerson, Secy. Fire Dept.

Rails.—Coalburg Colliery Co., Ronda, W. Va.—Carload 56 or 60-lb. relay rails, delivery Ronda.

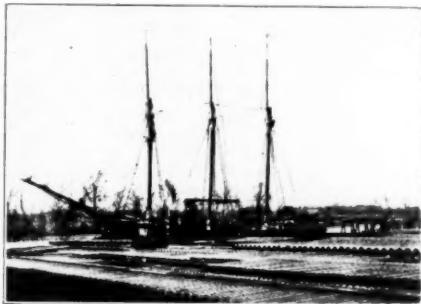
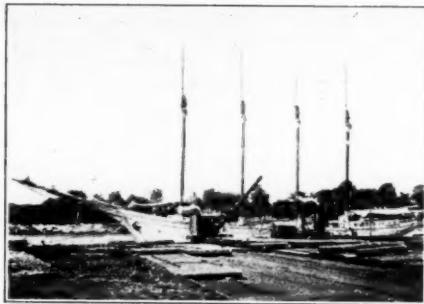
Reinforcing (Floor) Steel.—See Building Materials.

Reinforcing Steel.—Goodman Investment Corp., P. O. Box 706, Miami, Fla.—See Building Material.

Riprap, etc.—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until July 5 for placing riprap and constructing breakwater at U. S. Quarantine Station, Galveston, Tex.; plans on file or with Custodian at Galveston.

Road Construction.—Santuc Township Highway Comsn., Union, S. C.—Bids until June 10

(Continued on Page 114.)



Steamer-Schooner Bark

Unusual transportation problems can often be solved by water and rail or all water shipments. It is easy for a large steamer, a barge or even one of the older types of sailing vessel to load at our wharves. This service is often of value for domestic as well as export shipments.

For instance the four masted schooner illustrated carried a load of pipe to a New England sea-coast town both quickly and economically.

United States Cast Iron Pipe F and Co.
General Office: Burlington, New Jersey

(Continued from Page 112.)
to construct 5.33 mi. Woods Ferry road; plans, etc., with County Supvr.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 3.04 mi. State Highway along Philadelphia road from Baltimore county line toward Aberdeen; concrete; Harford County, Contract H-26A; specifications, etc., on file.

Road Construction.—State Road Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 1 mi. State Highway along Philadelphia road from Golden Ring toward Harford county line; alternate bids for concrete and asphalt on reconstruction base; Baltimore County, Contract B-42; specifications, etc., on file.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 2 mi. State Highway from Blackwater River toward Golden Hill; concrete; Dorchester County, Contract D-23; specifications, etc., on file.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 4.57 mi. State Highway from end of Aiken Ave. at Perryville to Port Deposit; concrete; Cecil County, Contract CE-30; specifications, etc., on file.

Road Construction.—North Carolina State Highway Comsn., Dist. Office, Greensboro, N. C.—Bids until June 14 to construct 10.57 mi. State highway in Forsyth and Guilford counties; State Aid Project No. 510; specifications, etc., on file at Raleigh.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 1.17 mi. State Highway along Main St. and East Church St.; concrete; Wicomico County, Contract Wi-17; specifications, etc., on file.

Road Construction.—State Highway Comsn., Frankfort, Ky.—Bids until June 15 to improve 4.4 mi. Hartford-Owensboro road, Ohio County; State Project No. 11, Section A; specifications, etc., with Joe S. Boggs, State Highway Engr., Frankfort.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 21 to construct 2 mi. State Highway from Clinton toward Piscataway; gravel; Prince George County, Contract P-27; specifications, etc., on file.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until June 18 to construct 1 mi. State road from Anxvassie; Callaway County; Federal Aid Project 136; \$14,456.15; A. W. Graham, State Highway Engr.

Road Construction.—Scott County Supvrs., Gate City, Va.—Bids until June 13 to grade Hanging Rock, Canton, Fincastle and other roads; specifications from County Clk., Gate City, and State Highway Commr., 116 S. Third St., Richmond, Va.

Road Construction.—Commrs. Road Improvement Dist. No. 11, J. A. Welty, Secy., De-Valley Bluff, Ark.—Bids until June 14 to construct roads; plans, etc., W. C. Ross, Engr., Hazen, Ark.

Road Construction.—DeKalb County, L. Y. T. Nash, Commr. Roads and Revenues, Decatur, Ga.—Bids until June 25 to construct 7.45 mi. State Aid road between Snap-finger Creek and DeKalb county line, State Aid Project S-5-8; plans, etc., on file and with State Highway Engr., Walton Bldg., Atlanta, Ga.; Joe W. Hawkins, Div. Engr., Walton Bldg., Atlanta.

Road Construction.—Oconee County Highway Comsn., Walhalla, S. C.—Bids until June 14 to construct 5.404 mi. Seneva Westminster road and bridges; 17,053 cu. yds. top soil surfacing; plans, etc., with J. N. Stribling, County Engr., and State Highway Engr., Columbia, S. C.

Road Construction.—State Highway Dept., Montgomery, Ala.—Bids until July 6 to grade, drain and surface Alexander City—Jackson Gap road, Tallapoosa County; 3,482 mi.; plans, etc., on file.

Road Construction.—Johnson County, Claude White, County Auditor, Cleburne, Tex.—Bids until June 23 to construct 14.94 mi. gravel road on Fort Worth road, State Highway No. 2; 12.56 mi. bituminous top gravel road on State Highway No. 2-A between Burleson and Alvarado; 12.05 mi. bituminous top gravel road on State Highway No. 2A between Alvarado and Hill county line; plans, etc., with State Highway Dept., Austin, Tex., and Whiteaker & Washington, County Engr., Cleburne, Tex.

Road Construction.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until June 23 to construct 7.05 mi. bituminous macadam road on State Road No. 11 between St. Paul and Coeburn, Wise County; Virginia Project No. 94; plans, etc., on file and with J. L. Sneed, Suffolk, Va.

Road Construction.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until June 23 to construct 6.50 mi. concrete road on State Road No. 4 between Tasley and Rue, Accomac County; Virginia Project No. 33; plans, etc., on file and with J. L. Sneed, Suffolk, Va.

Road Construction.—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until June 23 to construct 12.97 mi. soil road on State Road No. 10 between Cabin Point and Surry, Surry County; Virginia Project No. 116; plans, etc., on file and with J. L. Sneed, Suffolk, Va.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until June 16 to construct 5.34 mi. State road from Hamilton; etc., with County Clk., Kingston, Mo., State Highway Dept., Jefferson City, and A. C. State Aid Project S 20.43; \$28,704.10; plans, Sibley, Div. Engr., St. Joseph, Mo.

Road Construction.—Collin County, T. O. Murray, County Judge, McKinney, Tex.—Bids until June 15 to construct 2.86 mi. road in Dist. No. 17 at Blue Ridge, Contract No. 18; plans from F. W. Cawthon, County Engr., McKinney, Tex.

Road Construction.—Collin County, T. O. Murray, County Judge, McKinney, Tex.—Bids until June 15 to construct 8.97 mi. road at Frisco; Contract No. 16; plans from F. W. Cawthon, County Engr., McKinney.

Road Construction.—Collin County, T. O. Murray, County Judge, McKinney, Tex.—Bids until June 15 to construct 15.03 mi. road at Panoche; Contract No. 17; plans from F. W. Cawthon, County Engr., McKinney.

Roller (Steam).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—10 ton, 3 wheel, D. C. steam roller, state age, condition and shop number.

Rubber Working Machinery.—Duplex Tire & Rubber Co., R. W. Crissey, Mgr., 322 Frisco Bldg., Joplin, Mo.—Heavy standard rubber working mch.

Scraper.—Jas. E. Rector, 8 Technical Bldg., Asheville, N. C.—Cable and drag scraper for gathering shale.

Screen Cloth.—Goodman Investment Corp., C. F. Goodman, Prest., P. O. Box 706, Miami, Fla.—Prices on screen cloth for 135-room hotel.

Seating.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on opera chairs for Masonic Temple.

Shovel (Steam).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Erie B steam shovel, not later than 1920 model, state age, condition and shop number.

Sewers.—City of Corbin, Ky.—Bids until

June 28 to construct sewerage system in Dist. No. 4; plans, etc., with City Clk.

Severs.—City of Williamsburg, Va., J. M. Henderson, Mayor.—Bids until June 15 to extend sewer system; construct 3 1/2 mi. pipe sewers and appurtenances; plans, etc., from City Sergeant, Williamsburg, or from J. Temple Waddell, Engr., 208 Real Estate Exchange Bldg., Richmond, Va.

Sewing Machines.—L. Gosjean Fils & Co., Le Thillott (Vosges) France.—Prices on machines to sew belts and straps with leather thread, capable of sewing up to 25 m/m thickness and greatest width possible.

Stage Equipment.—Warren & Knight, 1607-11 Empire Bldg., Birmingham, Ala.—Bids on stage equipment for Masonic Temple.

Stamping Machines.—Bunn Vending Machine Co., Dyersburg, Tenn.—Machine to stamp sheet iron; immediate delivery.

Steel Lockers.—Guyan Machine Shops, Logan, W. Va.—Steel Lockers.

Sweeper (Street).—City of Bennettsville, S. C., H. J. Riley, Clk.—Horse drawn street sweeper.

Tanks (Storage).—Tropics Products Co., J. R. Payne, Secy., Arcadia, Fla.—Prices on storage tanks for citrus juices and vinegar.

Tire Repair Equipment.—Edens Tire Service, Sapulpa, Okla.—Complete shop equipment to repair tires of all sizes.

Tool.—Goodman Investment Corp., P. O. Box 706, Miami, Fla.—See Building Material.

Tool Grinders.—Guyan Machine Shops, Logan, W. Va.—Universal tool grinder.

Tool (Steel) and Stock Bind.—Guyan Machine Shops, Logan, W. Va.—Steel tool and stock bins.

Torch (Kerosene).—Globe Dredging Co., Savannah Bank & Trust Co Bldg., Savannah, Ga.—Name and addresses mfrs. of 5 or 10 gal. tank kerosene torch with hose and burner.

Toys.—Jas. R. Carroll, 525 Jefferson St., Portsmouth, Va.—Names and addresses mfrs. or dealers in toy boomerangs or other small toys for outdoor play.

Ventilating Equipment.—J. A. Flournoy, Macon, Ga.—Data and prices on ventilating equipment for \$15,000 moving picture theater.

Water Supply System.—Treasury Dept., Supvg. Archt's office, Washington, D. C.—Bids until June 29; Hot water supply system, etc. at U. S. Public Health Sanatorium, Fort Stanton, New Mexico.

Welding Machine.—Bunn Vending Machine Co., Dyersburg, Tenn.—Welding machine for sheet iron; immediate delivery.

Water Mains.—City of Sayre, Okla., W. Ben Turner, Chrmn.—4 and 6-in. bell and spigot water mains.

Water Meters.—City of Clermont, Fla., K. E. E. Munson.—Names and addresses mfrs. of standard water meters for private and business service.

Wood Working Machine.—Lufkin Home Building Co., A. D. Walker, V.-P., Gen. Mgr., Lufkin, Tex.—Correspondence with manufacturers of combination wood working or cabinet machine.

Wind Screen.—Constructing Quartermaster, Langley Field, Hampton, Va.—Bids until June 21 to construct and finish complete wind screen for air ship hangar at Langley Field.

Financial News

New Financial Corporations.

Fla., Jacksonville—Cotton States Cattle Loan Co., capital \$1,000,000 organized with V. B. Leonard, Prest. and Mgr.

Fla., Kissimmee—Merchants & Farmers (Continued on Page 116.)



Decayed post of coal chute foundation.



Decayed intermediate sills and flooring of freight cars.



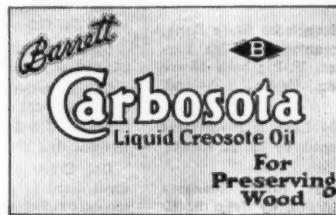
Decay is the greatest enemy of poles. Creosoting protects poles effectively.



Removing decayed roof boards over textile mill—the penalty for neglecting to protect the lumber against decay before erection. (Courtesy F. J. Hoxie, Eng. Assoc. Factory Mutual Fire Ins. Co., Boston, Mass.)



Wood roof-deck of paper mill creosoted by Open Tank process with Carbosota Liquid Creosote Oil. Dark ceiling is not a detriment.



The Cost of Doing Without

Practically every large industry pays out for maintenance of wooden construction huge sums which could be saved by using Carbosota. The cost of doing without this effective and economical wood preservative unquestionably aggregates millions of dollars annually.

Because of its absolute physical fitness for application by non-pressure processes, Carbosota places the economy of wood preservation within the reach of every lumber user. Except in the cases where complete impregnation is required, such as piling, railroad crossties, etc., Carbosota applied by Open Tank process (hot and cold bath treatment) or Surface treatments provides positive protection against wood decay.

A few of the many instances where the use of Carbosota will result in substantial savings are—

Mine Timbers and lumber used for all underground and surface construction.

Railroad Lumber used for car repairs, platforms, freight sheds, fences, roundhouse roof-decks, outhouses and other similar structures.

Pole Lines—For the treatment of new poles and also for salvaging sound portions of old poles which are suitable for short pole lines and stubs.

Roof-Decks of paper mills, textile mills and other buildings where excessive humidity exists. By preventing decay, Carbosota makes wood the ideal roof-deck material.

Write to our nearest office, giving details of your problem, and we will be glad to furnish definite information.

(Green wood cannot be effectively creosoted by non-pressure processes. It should be seasoned. All framing, drilling of bolt holes, etc., should be completed before treatment. If this is impossible, two brush coats of Carbosota should be applied to all untreated surfaces exposed by subsequent cutting or drilling.)

The *Barrett* Company

New York	Chicago	Philadelphia	Boston	St. Louis
Cleveland	Cincinnati	Pittsburgh	Detroit	New Orleans
Birmingham	Kansas City	Minneapolis	Dallas	Nashville
Syracuse	Seattle	Peoria	Atlanta	Duluth
Salt Lake City	Bangor	Washington	Johnstown	Lebanon
Youngstown	Milwaukee	Toledo	Columbus	Richmond
Latrobe	Bethlehem	Elizabeth	Buffalo	Baltimore
Omaha	Houston	Denver	Jacksonville	

THE BARRETT COMPANY, Limited: Montreal St. John, N. B.

Toronto

Winnipeg
Halifax, N. S.

(Continued from Page 114.)

Bank, capital \$25,000; organized with J. G. Staton, Prest.; R. E. Grabel, V.-P.; W. L. Jackson, Cashr.

Fla., Moore Haven.—Everglades State Bank, capital \$15,000; will organize with Ira Rigdon, Prest.; O. M. Baker, V.-P.; both Moore Haven; F. E. Henderson, Cashr., Lakeland, Fla.

Ga., Columbus.—Fidelity Loan & Investment Co., capital \$100,000; inceptd. by M. E. Elliott, C. Baxter Jones.

Md., Baltimore.—Liberty Bond Guaranty Co., 833 Calvert Bldg., inceptd. by John B. H. Jefferson, J. Lowe Sutherland, Edward E. Hargest, Jr.

Miss., Sunflower.—Citizens Bank, capital, \$15,000; inceptd. by J. S. Love, T. B. Ricks, M. D. Gilmer.

Mo., St. Louis.—Grant State Bank, inceptd. by C. J. Francis, W. C. Lieser, Louis H. Tiemann.

N. C., Charlotte.—Southern States Finance Corp., capital \$2,100,000; organized with J. E. Ashcraft, Prest.; F. G. Henderson, V.-P.; J. Robert Cherry, Secy.-Treas.

Tenn., Knoxville.—Harr-Collins-Anderson Co., capital \$100,000 inceptd. by Wesley Harr, R. C. Collins.

Tenn., Maryville.—Mutual Building & Loan Assn., capital \$125,000; inceptd. by A. J. Fisher, W. L. Webster, J. H. Staley.

Va., Norfolk.—Jefferson Insurance & Realty Corp., capital \$50,000 organized with C. C. Collmus, Jr., Prest.; W. A. Parker, V.-P.; E. N. Fuller, Secy.

Va., South Boston.—Liberty Savings Bank, capital \$50,000; organized with J. M. Mason, Prest.; D. C. Canada, Secy.; John W. Walters.

W. Va., Huntington.—Guyandotte Bank, capital \$50,000; inceptd. by L. V. Guthrie, R. L. Archer, D. I. Smith.

New Securities.

Ala., Tuscaloosa.—Road and Bridge.—Tuscaloosa County Board of Revenue sold \$150,000 bonds including \$75,000 road and \$75,000 bridge to City National Bank; Wm. W. Brandon, County Judge. (Lately noted inviting bids.)

Ark., Morrillton.—Street.—City will sell street bonds; J. A. Frishy, Mayor.

Fla., Bradenton.—Road and Bridge.—Manatee Co'ty will receive bids until July 4 on \$160,000 Gulf Shore Special Road and Bridge Dist. bonds; 6 per cent semi-annual \$1,000 denomination; W. P. Frier, Chrmn, County Comrns.

Fla., Green Cove Springs.—Drainage.—Walling Sub-Drainage Dist. received bids June 6 on \$150,000 of 6 per cent \$500 denomination drainage bonds, dated April 15, 1921; J. E. Taylor, Chrmn. County Comrns.

Fla., Lakeland.—School.—Lakeland School Dist. voted \$200,000 school bonds. Address Board of Education. (Lately noted to vote.)

Fla., Ocala.—School.—Marion County will receive bids until July 4 on \$10,000 Reddick Special Tax School Dist. No. 6 bonds; 5 per cent semi-annual; H. G. Shealy, Secy. Board Public Instruction.

Fla., Orlando.—Courthouse and Road.—Orange County may vote July 7 on \$2,500,000 bonds including \$2,350,000 road and \$150,500 courthouse. Address County Comrns.

Fla., Pensacola.—Refunding.—Pensacola Home & Savings purchased \$30,000 of 3 yr. certificates at par.

Fla., Tallahassee.—Drainage.—Everglades Drainage Dist. Board of Trustees has authorized to issue \$1,750,000 drainage bonds.

Fla., Tampa.—School.—Hillsborough County

Special Tax School Dist. No. 24 will vote July 8 on \$15,000 school bonds; Philip Shore, Chrmn. Public Instruction.

Ga., Claxton.—School.—Board of Education voted \$45,000 school bonds.

Ga., Fitzgerald.—School.—City may vote on \$68,000 school bonds. Address The Mayor.

Ga., Elberton.—Water, Street and Electric.—City sold \$65,000 water, street and electric bonds to First National Bank at par; J. T. Dennis, Jr., Mayor. (Lately noted voted.)

Ga., Helen.—Water.—Town will receive bids until June 27 on \$30,000 of 6 per cent semi-annual \$1,000 denomination water bonds; W. R. Ault, Clk.

Ga., Newnan.—School.—Starr School Dist. Trustees will vote June 28 on \$10,000 of 7 per cent. school bonds, dated Oct. 1, 1921; J. A. Daniel, Chrmn.

Ga., Kingsland.—School.—City voted \$20,000 school bonds. Address The Mayor.

Ga., Toccoa.—Water, Sewer and Paving.—City voted \$60,000 of 6 per cent semi-annual 10 to 30-yr. bonds, dated July 1, 1921; C. H. Davis, Mayor.

Ga., Valdosta.—School.—City sold \$150,000 school bonds to A. J. Strickland, Valdosta, Ga., and J. H. Hillman, Atlanta, Ga. Address The Mayor.

Ga., Weston.—School.—S. O. Brightwell, Chrmn. Board School Trustees, will receive bids until June 21 on \$20,000 of 6 per cent school bonds of Western School Dist. (Lately noted voting.)

Ky., Frankfort.—Sewer.—City plans to issue \$75,000 sewer bonds; W. S. Rosson, Mayor.

La., Covington.—Dredging.—St. Tammany Parish will sell \$25,000 of 5 per cent \$500 denomination 1 to 20-yr. bonds in August; these bonds were voted May 25. Address W. E. Van Zant in charge. (Lately noted to vote.)

La., Crowley.—Electric.—City voted \$100,000 electric bonds. Address The Mayor.

La., Lake Charles.—Drainage.—Lake Charles Drainage Dist. No. 1 sold \$150,000 of 5 per cent drainage bonds to Lake Arthur Dredging Co.; E. J. Russillion, Secy. Directors. (Lately noted inviting bids.)

La., Maudeville.—Seawall, Etc.—City will sell \$32,000 of 5 per cent \$500 denomination 1 to 25-yr. bonds in August; these bonds were voted May 25. Address W. E. Van Zant in charge. (Lately noted.)

La., Shreveport.—Street.—City sold \$160,000 street bonds to First National Bank; John McW. Ford, Mayor.

La., Plaquemine.—School.—Iberville Parish will receive bids until June 22 on \$25,000 of 5 per cent. semi-annual \$500 denomination, dated May 15, 1921; L. E. Messick, Supt. Schools.

Md., Centerville.—Road.—Queen Anne County will receive bids until June 21 on \$53,000 of 6 per cent semi-annual road bonds. Address County Comrns.

Md., Frederick.—Road.—Frederick County sold \$62,000 of 5 per cent semi-annual road bonds to Mercantile Trust & Deposit Co., Baltimore, Md. Address County Comrns. (Lately noted inviting bids.)

Miss., Delta City.—Drainage.—Delta City Drainage Dist. sold \$200,000 of 6 per cent \$500 denomination drainage bonds to Kauffman-Smith-Emert & Co., St. Louis, Mo.

Miss., Jackson.—School.—State Bond and Improvement Comrns. will sell \$1,000,000 repair and improvement work bonds.

Miss., Merigold.—School.—Merigold Consolidated School Dist. will vote on \$10,000 school bonds; Fred Clark, Election Commr., Rosedale, Miss.

Mo., Benton.—Drainage.—Scott County will

sell \$250,000 drainage bonds. Address County Court.

Mo., Independence.—Sewer and Light.—City voted \$130,000 sewer and \$35,000 light bonds; 6 per cent 20-yr. \$1,000 and \$500 denomination; J. S. Craig, Secy. to Mayor. (Lately noted to vote.)

Mo., Unionville.—Light and Water.—City sold \$84,000 light and power bonds to Wm. R. Compton Co., St. Louis, Mo.; Frank Statton, official in charge. (Lately noted.)

Mo., New Madrid.—Road.—New Madrid County sold \$250,000 road bonds to First National Bank of St. Louis, Mo. Address County Comrns.

Mo., Poplar Bluff.—Drainage.—Inter-River Drainage Dist. sold \$400,000 bonds to W. R. Compton Bond Co., St. Louis, Mo.

Mo., University City.—School.—University School Dist. sold \$65,000 of semi-annual \$500 and \$1,000 denomination bonds to Stix & Co., and First National Bank; both St. Louis, Mo. Address Board of Education.

N. C., Charlotte.—School.—J. M. Matthews, Supt. Public Instruction, will receive bids on \$30,000 of 6 per cent Newell School Dist. bonds, dated July 1, 1921.

N. C., Charlotte.—School.—Mecklenburg County will sell \$20,000 school bonds of Long Creek and \$25,000 Newell school bonds. Address County Board of Education.

N. C., East Spencer.—School.—Town will issue \$60,000 of 6 per cent semi-annual school bonds; E. W. Staton, Clk.

N. C., Goldsboro.—Bridge.—Wayne County will receive bids until July 5 on \$25,000 of 5 per cent semi-annual \$1,000 denomination, dated June 1, 1921. Address County Comrns.

N. C., Hillsboro.—School.—Carrboro School Dist. sold \$25,000 of 6 per cent school bonds. Address County Board of Education.

N. C., Jackson.—School.—P. J. Long, Supt. Northampton County Board of Education, will receive bids June 18 on \$10,000 of 6 per cent 8-20-yr. school bonds.

N. C., Mooresville.—School—Mooresville Graded School Dist. will receive bids until June 25 on \$50,000 of 6 per cent semi-annual \$1,000 denomination 20-yr. dated July 1, 1921; J. P. Mills, Chrmn.

N. C., Nashville.—School.—Spring Hope Graded School Dist. voted \$75,000 bonds. Address Dist. School Trustees.

N. C., Pittsboro.—School.—Chatham County will receive bids until June 18 on \$12,000 Monroe School Dist. Haw River Township No. 1 bonds; 6 per cent \$1,000 denomination, dated July 1, 1919; W. R. Thompson, Secy. Board of Education.

N. C., Salisbury.—School.—City will vote June 7 on \$500,000 school bonds. Address The Mayor.

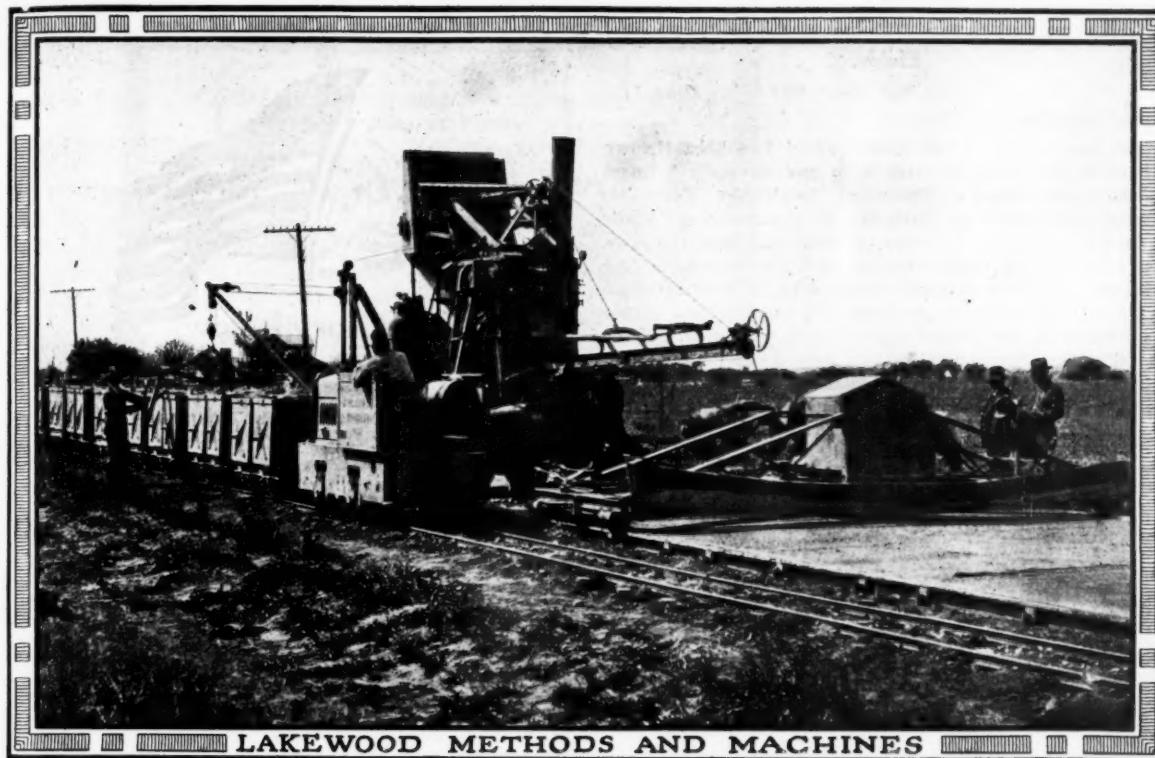
N. C., Smithfield.—School.—Smithfield Graded School Dist. sold \$200,000 of 6 per cent school bonds to First National Bank at par. Address Board of Education.

N. C., Smithfield.—Road.—Smithfield Township will receive bids until June 28 on \$15,000 of 6 per cent semi-annual \$1,000 denomination road bonds, dated May 1, 1921; J. W. Stephenson, Chrmn.

N. C., South Mills.—Road.—Camden County, South Mills Township will receive bids until June 30 on \$30,000 of 6 per cent semi-annual \$1,000 denomination, dated June 30, 1921; D. E. Williams, Chrmn. (Supersedes recent item.)

N. C., Southport.—School.—Town will vote on school bonds. Address The Mayor.

N. C., Raleigh.—City sold \$360,000 of 6 per cent 20-yr. bonds to Citizens National Bank at \$360,072 and accrued interest. Address (Continued on Page 120.)



LAKEWOOD METHODS AND MACHINES

Potts & Prentice Report Wonderful Success with Lakewood Plant

About 40 miles of 18-ft. concrete road 8 in. thick is being built by Potts & Prentice near Wichita Falls, Texas. The work is being completed at the rate of over 900 feet a day. On April 14th 1000 feet of road was laid.

The contractors are exceedingly well pleased with their Lakewood road plant. In fact, Mr. Prentice says that the plant, as a whole, has lived up to expectations in every way.

The Lakewood equipment in use includes 2 Pavers (14-E), 52 Cars, 102 Batch Boxes, 5 miles of Track, 2 Finishers, 2 Subgraders, 2 double unit Pumps, 100 Tunnel Traps.

Ask for a copy of "Reducing the Guess in Road Work."



The Lakewood Engineering

Company, Cleveland U.S.A.

A Call for Development of Enormous Southern Coal Fields.

Big Stone Gap, Va., June 1.

Editor Manufacturers Record:

The coal trade of the whole world has been thrown square at this immense coal field, and we seem helpless to take any action. Cincinnati, Louisville, Knoxville, Bristol and Charleston Chambers of Commerce are ready to lend a hand, but not one of them will lead the way. We have got to reach Morgan and his associates and morally force them to come across with railroad facilities which this opportunity demands. If there is any bigger opportunity in the United States which we got out of the war than the development of this field, I don't know of it. I believe with you that this reconstruction part of work following the war is as much of an obligation as was the winning of the war, and possibly doubly so. We let everybody help win the war, why not do the same in this reconstruction part?

I have one striking instance of the creative power of your paper, the details of which I will be glad to send you if you care to have them, but I feel that you have so many of these examples that one more would not be of special interest. We have a big half million dollar central plant here for manufacturing hosiery, with some ten branch plants in the neighboring towns, directly through your paper pointing out the possibilities of this field.

There is really more behind the movement to develop this section of the country than appears on the surface, but those who are behind it dare not show their hands. Big Stone Gap is noted for its ability to furnish the initiative for some big progressive efforts in the past. She led the whole South in promoting highways. She pushed the matter until our county spent \$700,000 for modern highways in 1906, the first county in the whole South to play the game; and I challenge any county or any town in the whole South to dispute this claim. Now we are up against the greatest reconstruction period in the world's history. Shall we act like the Russians, or like real red-blooded Americans? This hour calls for super-stuff. The world wants our coal. We have 100,000,000,000 tons of the black stuff, and Wall Street has the world's money. It looks like a plain case to me. Can you not suggest some way that we could get the recognized leaders in the South awakened to this opportunity?

I cannot close this letter without pointing out the immense iron ore resources in this immediate field, which according to the geological map is identical with Birmingham, and is separated from coal by a big ridge or small mountain of limestone. The enormous gap in this ridge of limestone is where Big Stone Gap gets its name. Mr. E. D. Stratton, one of the Southern Railway service men, has been here recently and looked into these resources and prospects very thoroughly, and pronounces Big Stone Gap one of the greatest industrial possibilities in the country. Our people are more or less awake to the necessity for publicity, and I believe that we have the foundation here to start a big reconstruction activity for the whole South.

W. G. COUTTS.

Oils, Rosin, Turpentine, Iron, Steel, Etc.

Riccardo Pistone, Viale Victoria, 16, Milan, Italy.—I would like to enter into commercial relations with firms manufacturing all the products of petroleum or naphtha, mineral oil, vaseline, and paraffine. The products which my clients consume are: rosin, turpentine, benzine, petroleum, mineral oil, wax, paraffine, candles, vaseline, chemical products in general, caustic soda, sodium carbonate, etc., heavy oils and tar products, coal, charcoal, iron, steel, and cast-iron.



AMERICAN SHIPS ARE AVAILABLE FOR YOUR OCEAN VOYAGE

New Combination Passenger and Freight Ships, Fast, Luxurious Steamers. Key number beside ship's name indicates operator shown bottom of column.

EUROPE

Queenstown, Boulogne and London

From New York

July 12—August 16—September 20—Old North State (159).
July 28—August 2—September 6—Panhandle State (159).
Bremen and Danzig

From New York

July 13—August 30—Hudson (159).
July 23—September 7—Susquehanna (159).
July 28—September 14—October 20—Potomac (159).
Naples and Genoa

From New York

June 30—August 13—September 24—Pocahontas (159).
July 20, August 31, October—Princess Matoika (159).
Plymouth, Cherbourg and Bremen

From New York

June 22—July 23—August 24—September 28—America (159).
July 30—August 27—September 24—George Washington (159).

FAR EAST

Honolulu, Yokohama, Kobe, Shanghai, Manila, Hongkong

From San Francisco

July 23—Empire State (105).
Kokohama, Kobe, Shanghai, Hongkong, Manila

From Seattle

June 18—August 27—Wenatchee (106).
July 9—Silver State (106).
July 30—Keystone State (106).

HAWAII, PHILIPPINES, EAST INDIA

Honolulu, Manila, Saigon, Singapore, Colombo, Calcutta
From San Francisco

Wolverine State (105).
July 14—Granite State (105).

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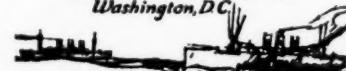
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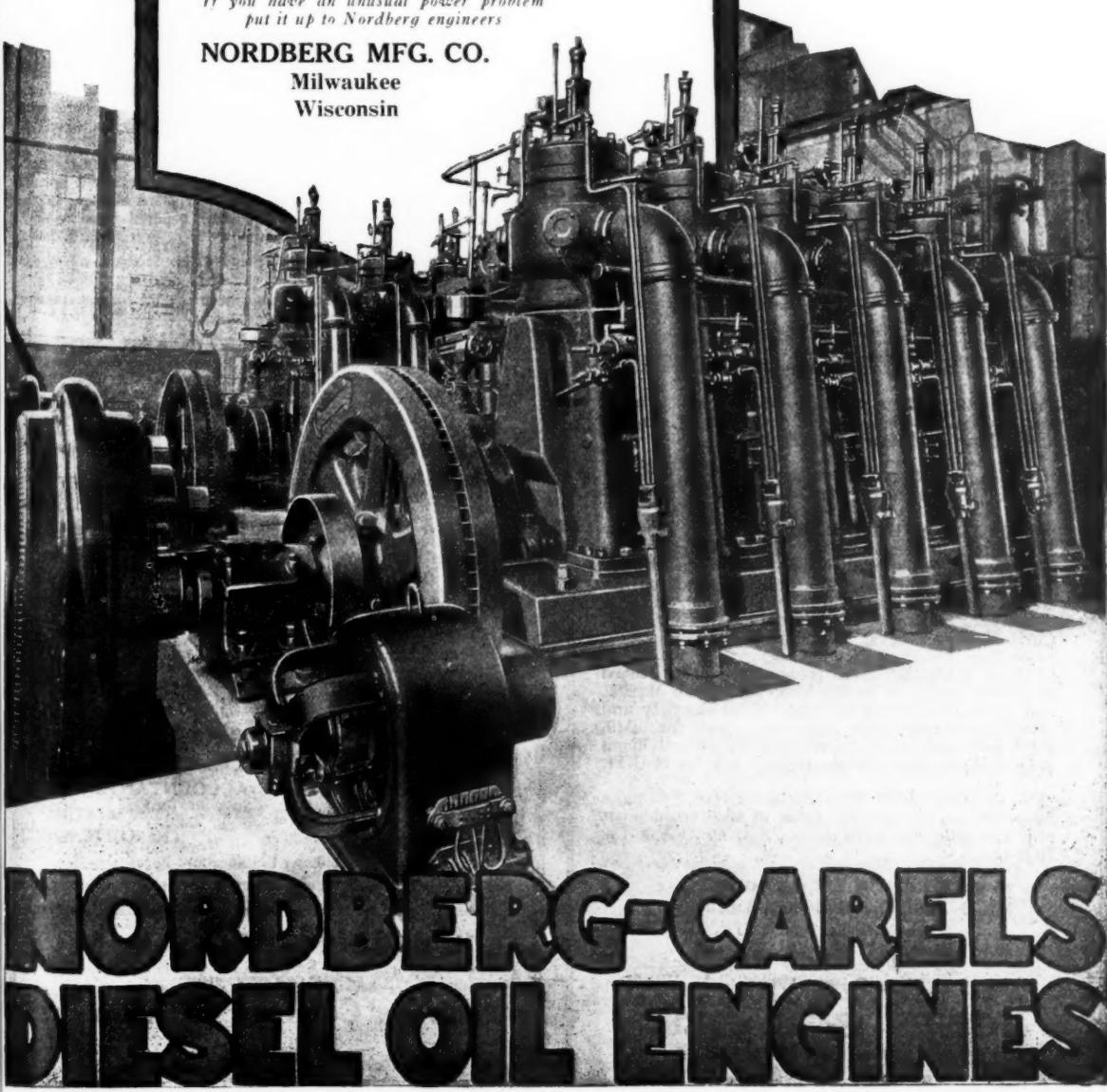
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dress City Comms. (Lately noted inviting bids.)

N. C., Whiteville.—Road and Bridge.—Columbus County will receive bids until June 20 on \$50,000 of 6 per cent 20-yr. road and bridge bonds; W. A. Baldwin, Clk. County Comms.

Okla., Bryan.—Electric.—City will vote on \$15,000 electric bonds. Address The Mayor.

Okla., McAlester.—Sewer.—City voted \$50,000 sewer bonds. Address The Mayor. (Lately noted to vote.)

Okla., Sayre.—Water.—City will vote June 14 on \$28,500 water bonds. Address The Mayor.

Tenn., Jacksboro.—Road.—Campbell County received bids June 6 on \$356,000 of 6 per cent road bonds. Address County Comms.

Tenn., Jackson.—Road.—Madison County sold \$100,000 of 6 per cent road bonds to Weil, Roth & Co., Cincinnati, O.; J. T. Rothrock, Jr., County Judge. (Supersedes recent item.)

Tenn., Madisonville.—Road.—Monroe County may vote on \$260,000 road bonds. Address County Court.

Tenn., Memphis.—School.—Memphis School Dist. will sell \$1,000,000 school bonds; G. W. Garner, Secy. School Board.

Tenn., Murfreesboro.—Rutherford County sold \$165,000 of 6 per cent bonds to National Bank of Commerce, St. Louis, Mo. Address County Comms.

Tenn., Paris.—School, Street, Electric, etc.—City will vote June 18 on \$250,000 public improvement bonds; J. R. Rison, Jr., Mayor.

Tex., Angleton.—Road.—Brazoria County Good Roads Assn. contemplates issuing \$3,000,000 of 6 per cent 20-yr. serial bonds, proposed to retire \$871,000 outstanding district issues and reconstruct to State Federal standard, 225 mi. highway; C. D. Jessup, Prest.

Tex., Big Spring.—Water.—City registered \$60,000 of 6 per cent, 20-40-yr. water bonds with State Comptroller.

Tex., Booker.—School.—School Board will sell \$50,000 school bonds. Address Secy. School Board.

Tex., Chillicothe.—Sewer and Water.—City will not sell \$35,000 water and \$75,000 sewer bonds voted May 3 until after Jan. 1, 1922. Address The Mayor. (Lately noted voting.)

Tex., Decatur.—Road.—Wise County Road Dist. No. 2 voted \$150,000 road bonds; W. D. Paschal, County Judge.

Tex., Freeport.—Levee.—Town sold \$133,000 levee bonds to Harold G. Wise & Co., Houston, Tex.; 6 per cent 20-yr.; H. H. Haden, Mayor. (Previously noted voting bonds.)

Tex., Fredericksburg.—School.—Fredericksburg Independent School Dist. voted \$75,000 of 6 per cent serial 1 to 40-yr. \$500 denomination school bonds. Address The Secy. (Lately noted to vote.)

Tex., Galveston.—Attorney General's Dept., Austin, Tex., approved \$150,000 of 5 1/2 per cent road bonds; E. B. Holman, County Judge.

Tex., Harrisburg.—Sewer and Street.—City voted \$100,000 sewer and street bonds. Address The Mayor.

Tex., Hempstead.—School.—School Board voted \$10,000 school bonds.

Tex., Panhandle.—School.—School Board will sell \$400,000 school bonds. Address Board of Education.

Tex., Perryton.—School.—Perryton School Dist. will sell \$175,000 school bonds.

Tex., Schulenburg.—School.—City voted \$60,000 school bonds. Address The Mayor.

Tex., Slaton.—Sewer and Water.—City voted sewer and water bonds. Address The Mayor.

Tex., Wheeler.—State Comptroller registered \$57,000 of 5 1/2 per cent 10 to 40-yr. bonds of Wheeler County. Address County Comms.

Va., Clifton Forge.—Water.—City plans vot-

ing on \$150,000 water bonds. Address The Mayor.

Va., Dublin.—School.—School Board plans issuing \$50,000 school bonds.

W. Va., Richwood.—City will vote on \$27,000 street bonds. Address The Mayor.

Railways.

Ala., Tuscaloosa.—Kaul Lumber Co. has made survey for logging road from Tuscaloosa to near Duncanville, Ala., about 12 mi.

Ky., Paducah.—Illinois Central Railroad let grading contract to R. L. Frazer, of LaCarter, Ky., for southbound classification and departure yard at Paducah including 6 tracks of 75 cars capacity each and an additional scale and repair track. Track work by company forces. Existing yard will be rearranged. F. L. Thompson, Chicago, Ill., is Ch. Engr.

Md., Baltimore.—Pennsylvania Railroad Co. has let contract to the Wm. A. Potts Co. to remove a block of dwellings on Guilford Ave. near Eager St., preparatory to enlarging Calvert Station yards. S. L. Church, Baltimore, is Div. Engr.

Miss., Sanatorium.—Bids are asked to grade railroad siding involving 5,000 to 6,000 cu. yds. earth work at State Tuberculosis Sanatorium. Theo. C. Link is supervising architect State Bond Improvement Comm., Box 636, Jackson, Miss.

Tex., Longview.—Port Bolivar Iron Ore Railroad Co., is reported contemplating construction of extension about 8 mi. to connect with the Missouri, Kansas & Texas Railway. L. P. Featherstone, Longview, is Mgr.

Tex., San Antonio.—Kinney & Uvalde Railroad Co., capital \$10,000, is chartered to build 8 mi. line from near Cline Station on the Galveston, Harrisburg & San Antonio Railway, to asphalt deposit. Incorporators R. J. Boyle, J. H. Grover and R. N. Gresham, all of San Antonio.

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Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Oil Refinery Engineers and Builders.

Brown & Ruehmann, engineers, designers and builders of petroleum refineries, have established executive offices in Room 21, at 14 Maiden Lane, New York City, and a branch office at 1019 West Terrell Avenue, Fort Worth, Texas. They have an experienced staff and undertake the planning and construction of refineries of any size.

Ornamental Iron and Bronze.

The Newman Manufacturing Co., of Cincinnati, have been given a contract to furnish all ornamental iron and bronze work required for the building of the Shenandoah Valley Bank & Trust Co., Martinsburg, W. Va., A. R. Small, of that place being the general contractor. The Newman organization have also been awarded a metal work contract for the Fultonville Bank by the Southern Ferro-Concrete Co., this contract being obtained through the R. C. Lieb Co., of Atlanta, who were recently appointed Newman representatives for the State of Georgia.

Operation of Plant in Spite of Fire.

The plant of the Heltzel Steel Form & Iron Company, Warren, Ohio, was partly destroyed by a fire on June 2, the steel fabricating department suffering the most damage, but it has nevertheless continued

operation almost uninterruptedly since then, and shipments of steel forms were made a short time after the fire. The company, in addition to manufacturing steel forms for concrete road, sidewalk, curb and gutter, and other concrete construction, also conduct general plate construction, and it is expected that within a few days wheels will again be turning in the department for this latter work as immediate steps were taken to get it back in operation. Because of the present road building campaign throughout the country the steel form department was very busy when the fire took place and the company were fortunate that it was not damaged greatly.

Remodeling an Important Plant.

The Buffalo Forge Company, Buffalo, N. Y., which began in a very modest way 40 years ago, and which in 1917 started the conversion of its factory into a modern brick and steel saw tooth construction building, extending it over 116,023 square feet of working area including 44,916 square feet of assembling galleries, is now pushing this construction to remodel the entire fan shop. When completed, this shop will be one of the largest in the United States, covering 64,235 square feet, including 23,873 square feet of assembling galleries. While

this improvement is in progress production continues without interruption and when it is done all fan construction will be accomplished with a minimum of handling. The material racks are served by an electric railway truck with automatic lift platform. This means increased efficiency.

Machine for Pulling Stumps Rapidly.

A stump pulling machine, operated by the American Clearing Company, of Hamilton, Ohio, to clean up cut over lands is thus described by D. H. DeArmond, of that city, according to a report which remarks that he is not connected with the company: "I saw huge stump pullers pull stumps in twenty seconds, that could not have been dug out of the ground in two days. The machines pull 400 stumps every ten hours. Then the stumps are sawed and split and put into retort, and turpentine, pine oil, creosote, charcoal and other products secured." Mr. DeArmond witnessed this operation near Green Cove Springs, Fla. The stump pulling machine consists of an upright vertical boiler and steam engine operating a drum or windless with long wire rope attached. These are mounted on a steel frame which is pivoted on a patent anchor sunk into the ground. The steel rope is 850 feet long and it is attached to a pulley fastened to a large stump in the field to be cleared. Short pieces of steel wire rope extend from the main cable to stumps along its length and when the engine and drum are operated several stumps are drawn with one effort. The machine moves from one place to another under its own power. R. L. Dollings is president and D. A. Trapp vice-president of the company.

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